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US-08-432-697-34

US-08-466-248-34

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US-08-336-251-3
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                                                                                                                                   ; LENGTH: 215 amino
; TYPE: amino acid
; STRANDEDNESS: sing
; TOPOLOGY: linear
; MOLECULE TYPE: prote
US-08-997-080-117
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US-08-997-080-117
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                                                                    Query Match
Best Local :
                                          Matches
                                                                                                                                                                                                                                                     INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
LENGTH: 215 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         COMPUTER READABLE FORM:
MEDIUM TYPE: Diskett
COMPUTER: IBM Compat
OPERATING SYSTEM: DO
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FILING DATE:
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CLASSIFICATION:
                                                                 Local
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NAME: Sleath, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 1100
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-269-0565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              OFFINATELY SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Ann W.
STREET: 2601 Elliott Avenue, Sui
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      APPLICANT: WATSON, JAMES D.
APPLICANT: TAN, PAUL L.J.
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR THE TREATMENT OF IMMUNOLOGICALLY
NUMBER OF SEQUENCES: 194
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Pred. No. 9e-13;
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Suite 4185
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GENERAL INFORMATION:
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APPLICANT:
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MEDIUM TYPE: Diskette
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             APPLICANT:
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PPLICANT:
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                                                                                                                                                                                                                                                                                                                                                                                                                                        APPLICATION NUMBER: U.S. Patent Application No. FILING DATE: June 12, 1997
APPLICATION NUMBER: U.S. Patent Application No. FILING DATE: August 29, 1996
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                                                                                                                                                                                                                                                                                                                                      TELEX:
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                                                                                                                                                                                                                                                                                                                                                                                                  NAME: Sleath, Janet REGISTRATION NUMBER: 37,007
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            Tan, Paul
Visser, Elizabeth
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Skinner, Margot
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Scott, Linda
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01 Elliott Avenue, Suite 4185
                                                                                                                                                                                                                                              protein
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                                                                                                                                                                                                                                                                      single
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100.0%; Pred. No. 9e-13;
tive 0; Mismatches 0;
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DIAGNOSIS OF
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                                                                                                                                                                                                      Length 215;
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                                                                                                                                                                                                          Patent No.
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; TOPOLOGY: 1; MOLECULE TYPE: US-09-095-855-117
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Best Local Similarity
Matches 22; Conserv
NUMBER OF SEQ ID NOS: 194

SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 117

LENGTH: 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               GENERAL INFORMATION:
                                                                                                                                   TITLE OF INVENTION: Methods and Compounds for the Treatment TITLE OF INVENTION: of Immunologically-Mediated Skin Disords FILE REFERENCE: 11000.1007c1 CURRENT APPLICATION NUMBER: US/09/324,542 CURRENT FILING DATE: 1999-06-02 EARLIER APPLICATION NUMBER: US 08/997,080 EARLIER FILING DATE: 1997-12-23
                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Watson, James D. APPLICANT: Tan, Paul L.J. APPLICANT: Prestidge, Ross
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: 23-DEC-1997
ATTOREY/AGENT INFORMATION:
NAME: Sleath, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 1100
TELECOMMUNICATION INFORMATION:
TELECPHONE: 206,269-0565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS:
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APPLICATION NUMBER OF THE PROPERTY APPLICATION NUMBER OF 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION:
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: 08/70:
FILING DATE: 29-AUG-1996
APPLICATION NUMBER: 08/87:
FILING DATE: 12-JUN-1997
APPLICATION NUMBER: 08/997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CLASSIFICATION: PRIOR APPLICATION DATA:
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MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TELEPHONE: ZUU - 10563
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5. 6328978
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Treatment and
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Diagnosis of Mycobacterial
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US-08-997-080-114
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                           Sequence 114, Application US/08997362 Patent No. 5985287 GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence 114, Application US/08997080 Patent No. 5968524 GENERAL INFORMATION:
                                                                                                                                                                                         Query Match
Best Local 9
                                                                                                                                                                            Matches
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Best Local Similarity
                                                                                                                                                                                                                                                                                              INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS LENGTH: 523 amino acid
                                                                                                                                                                                                                                          STRANDEDNESS:
TOPOLOGY: line
MOLECULE TYPE: [
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SOFTWARE: FastSEQ for Windows Version 2.0 CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                                                                                                   TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-269-0565
TELEFAX: 206-269-0563
                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: WATSON, JA
APPLICANT: TAN, PAUL
     APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
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OPERATING SYSTEM:
SOFTWARE: FastSEC
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STATE:
                                                                                                                                                                                         Local Similarity
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                                                                                                                                                                                                                                                                                 TYPE: amino acid
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                                                                                                                                                                                                                                                                                                                                                                                       NAME: Sleath, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ADDRESSEE:
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                                                                                                                                    GPKGRNVVLEKKWGAPTITNDG 22
                                                                                                                        GPKGRNVVLEKKWGAPTITNDG
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2601 Elliott Avenue, Suite 4185
    Tan, Paul
Hiyama, Jun
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                                                                                                                                                                           Conservative
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SYSTEM: DOS
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m IL} L.J. METHODS AND COMPOUNDS FOR THE TREATMENT OF IMMUNOLOGICALLY-
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Pred. No
                                                                                                                                                                                       Score 122; DB 2;
Pred. No. 2.6e-12;
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                                                                                                                                                                                                  Length 523;
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US-09-095-855-114
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Matches
                                                                                                                                   GENERAL INFORMATION:
APPLICANT: Tan, Pa
APPLICANT: Visser,
APPLICANT: Skinner
APPLICANT: Prestid
                                                                                                                                                                                                  Sequence 114,
Patent No. 61
                                                                                                                                                                                                                                                                                                                                                              Query Match
                                                                                         TITLE OF INVENTION: Compounds and Methods for TITLE OF INVENTION: Treatment and Diagnosis o NUMBER OF SEQUENCES: 208
                                                                              CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   STREET: 200
STREET: Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
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           CITY:
STATE: WA
STATE: WA
COUNTRY: US
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                                                    STREET:
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                                                                   ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                        LENGTH:
                                        Seattle
                                                                                                                                                                                                                                                                                                                                                                                                                                          amino acid
                                                     E: Law Offices of Ann W. Speckman 2601 Elliott Avenue, Suite 4185
                                                                                                                                                                                                               Application US/09095855
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                                                                                                                                 Prestidge, Ross
                                                                                                                                              Visser, Elizabeth
Skinner, Margot
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Mycobacterial Infections

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; TOPOLOGY: linear ; MOLECULE TYPE: protein US-08-997-362-114
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APPLICANT: PRESTIDE: COMPOUNDS AND M
TITLE OF INVENTION: TREATMENT AND I
NUMBER OF SEQUENCES: 194
CORRESPONDENCE ADDRESS:
ADDRESSEE: Law Offices of Ann W.
ADDRESSEE: TAN OFFICER AVENUE, Suf
                                                                                                                                                                                                                                                                                INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                     FILING DATE: August 29, 1996
ATTORNEY AGENT INFORMATION:
NAME: Sleath, Janet
REGISTRATION NUMBER: NUMBER: Sleath, Janet
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                          SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 206-269-0565
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       PRIOR APPLICATION DATA:
                                                                     Local Similarity 100 
les 22; Conservative
                                                                                                                                                                                                                                                                                                                                                                       REGISTRATION NUMBER: 37, REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICATION NUMBER: U FILING DATE: June 12, APPLICATION NUMBER: U
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                             1 GPKGRNVVLEKKWGAPTITNDG 22
GPKGRNVVLEKKWGAPTITNDG
                                                                                                                                                                                                                                       523 amino acids
                                                                                                                                                                                                                                                                                                                     206-269-0563
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Skinner, Margot
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IBM Compatible
                                                                                                                                                                                                    single
                                                                  100.0%; Score 122; DB 2; 100.0%; Pred. No. 2.6e-12; 10ve 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      U.S. Patent Application No. 2, 1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               US/08/997,362
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52
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Suite 4185
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                                                                                                       Length 523;
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OPERATING SYSTEM: DOS SOFTWARE: FastSEQ for Windows Version CURRENT APPLICATION DATA:

IBM Compatible

Diskette

COMPUTER READABLE FORM: MEDIUM TYPE: Diskett

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                                                                                                                              ; ORGANISM: Mycobacterium vaccae US-09-324-542-114
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US-09-324-542-114
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                                                                                                                                                                            NUMBER OF SEQ ID NOS:
SOFTWARE: FastSEQ for
SEQ ID NO 114
LENGTH: 523
                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 114, App
Patent No. 63289
                                                                Matches
                                                                                               Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                           CURRENT APPLICATION NUMBER: US/09/324,542
CURRENT FILING DATE: 1999-66-02
EARLIER APPLICATION NUMBER: US 08/997,080
EARLIER FILING DATE: 1997-12-23
                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                           TITLE OF INVENTION: Methods and Compounds for the TreTITLE OF INVENTION: of Immunologically-Mediated Skin FILE REFERENCE: 11000.1007c1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                TYPE: PRT
                                                                                                                                                                                                                                                                                                                                                          PPLICANT: Watson, James D. PLICANT: Tan, Paul L.J. PPLICANT: Prestidge, Ross
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CLASSIE LUBITON DATA:
PRIOR APPLICATION NIMBER: 08/705,347
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ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         APPLICATION NUMBER: 08/70:
FILING DATE: 29-AUG-1996
APPLICATION NUMBER: 08/87:
FILING DATE: 12-JUN-1997
APPLICATION NUMBER: 08/99
31
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REFERENCE/DOCKET NUMBER: 11000.1002c3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
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                                                                                Local
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               1 GPKGRNVVLEKKWGAPTITNDG 22
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GPKGRNVVLEKKWGAPTITNDG
                                                                              Similarity
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                                                                Conservative
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23-DEC-1997
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                                                           100.0%; Score 122; DB 4
100.0%; Pred. No. 2.6e-1
tive 0; Mismatches
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52
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                                                                                               DB 4;
                                                                                                                                                                                                                                                                                                                                             Treatment
                                                                                            Length 523;
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                                                               Indels
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US-08-368-834-20
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                                                                                                                                                         Sequence 3, Application US/08461722
Patent No. 6335183
GENERAL INFORMATION:
APPLICANT: Young, Richard A. and Young,
TITLE OF INVENTION: Stress Proteins and
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
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APPLICANT: Birnbaum, Gary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TELEFAX: 612-332-9081
INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Kotilinek
APPLICANT: Braun, Per
TITLE OF INVENTION: 1
TITLE OF INVENTION: 1
TITLE OF INVENTION: 1
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
                                                                         STREET: 2...
CITY: Lexington
STATE: MA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/368,834
FILING DATE: 16-DEC-1994
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TELECOMMUNICATION INFORMATION: TELEPHONE: 612-332-5300
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ATTORNEY/AGENT INFORMATION:
NAME: Kowalchyk, Katherine M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                            31 GPKGRNVVLEKKWGAPTITNDG 52
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TYPE: amino a STRANDEDNESS:
                                                       COUNTRY: USA
ZIP: 02173
                                                                                                                                                                                                                                                                                                                                                                                                                                Local Similarity
les 22; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               REFERENCE/DOCKET NUMBER: 60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     ZIP: 55402
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    STATE: Minnesota
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CITY: Minneapolis
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                                                                                                                                            ADDRESSEE:
                                                                                                                                                                                                                                                                                                                                                                                1 GPKGRNVVLEKKWGAPTITNDG 22
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5874405
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                                                                                                                         2 Militia Drive
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         540 amino acids
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3100 No. 5874405west Center
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VENTION: Heat Shock Protein Peptides That Share
VENTION: Sequences with Cyclic Nucleotide Phosphodiesterase and
VENTION: Methods for Modulating Autoimmune Central Nervous System
                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                            Hamilton,
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                                                                                                                                            Brook, Smith & Reynolds, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                  0;
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Pred. No. 2.7e-12;
Pred. No. 2.7e-12;
                                                                                                                                                                                                 Uses Therefor
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PatentIn

PC-DOS/MS-DOS In Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

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US-08-461-722-4
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                                                                                                                                                                                                                                                        Sequence 4, Application US/08461722
Patent No. 6335183
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            INFORMATION FOR SEQ ID NO:
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0
                                                                                                                                                                     APPLICANT: Young, Richard A. and Young, Douglas TITLE OF INVENTION: Stress Proteins and Uses Therefor NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE CHARACTERISTICS:
LENGTH: 540 amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WHI88-09AFA4
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: US U//40/,---
RIPLICATION NUMBER: US U//40/,---
FILING DATE: 15-JUN-1988
PRIOR APPLICATION DATA:
PRIOR APPLICATION NUMBER: PCT/US89/02619
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATA:
CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 07/804,632
APPLICATE: 09-DEC-1991
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PRIOR APPLICATION DATA:
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: amino acid
                                                                                                                                     CITY: Lexington
                                                                                                                                                                                                                                                                                                                                                                                  31 GPKGRNVVLEKKWGAPTITNDG 52
                                                                                                  COUNTRY:
                                                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TOPOLOGY:
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                                                                                                                                                       2 Militia Drive
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PatentIn Release #1.0, Version #1.25
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                                                                                                                                                                                                                                                                                                                                                                                                                                                 0;
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Pred. No. 2.7e-12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mismatches
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; MOLECULE TYPE: protein US-08-461-722-4
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US-08-336-251-3
                                                                                                                                                                                                                  GENERAL INFORMATION:
APPLICANT: Young, Richai
TITLE OF INVENTION: Stra
NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                       Sequence 3, Application US/08336251 Patent No. 6338952
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Query Match
Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        INFORMATION FOR SEQ ID NO:
              COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
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REFERENCE/DOCKET NUMBER: WH
TELECOMMUNICATION INFORMATION:
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NAME: Granahan, Patricia
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PRIOR APPLICATION DATA:

08/336,251
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                   STREET:
                                                                                                                                   COUNTRY:
                                                                                                                                                       STATE:
                                                                                                                                                                                   ADDRESSEE: Hamilton, Bro
STREET: 2 Militia Drive
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                                                                                                                     ZIP: 02173
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FILING DATE: 15-JUN-1989
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FILING DATE: 06-JUN-1994
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100.0%; Pr
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US/08/336,251
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Pred. No. 2.7e-12;
; Mismatches 0;
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: 1
FILING DATE: 06-JUN-

06-JUN-1993

PCT/US94/06362

FILING DATE: 0 CLASSIFICATION:

03-NOV-1994

CLASSIFICATION:

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US-08-336-251-4
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Best Local Similarity
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PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07
FILING DATE: 15-JUN-1989
PRIOR APPLICATION DATA:
                                                                                                                         COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
                                                                                                                                                                                                   COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                             uence 4, Application US/08336251
lent No. 6338952
WERAL INFORMATION:
                   PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/US94/06362
FILING DATE: 06-JUN-1993
                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C.
STREET: 2 Militia Drive
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APPLICATION NUMBER: PCT/US89/02619
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PRIOR APPLICATION DATA:
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APPLICATION NUMBER: US 08/073,381
FILING DATE: 04-JUN-1993
                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT: Young, Richard S.
TITLE OF INVENTION: Stress Proteins and Usés Therefor
                                                                                                                                                                                                                                                                                                                                                                           NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            REFERENCE/DOCKET NUMBER: WH: ILECOMMUNICATION
                                                                                        APPLICATION NUMBER: FILING DATE: 03-NO
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31 GPKGRNVVLEKKWGAPTITNDG 52
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CLASSIFICATION:
                                                                         CLASSIFICATION:
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                                                               PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08,
FILING DATE: 04-JUN-1993
ATTORNEY/AGENT INFORMATION:
NAME: Granahan, Patricia
REGISTRATION NUMBER: 32,22
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                       COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
CURRENT APPLICATION DATA:
                           REGISTRATION NUMBER: 32,227
REFERENCE/DOCKET NUMBER: WH188-08AFA2 PCT
TELECOMMUNICATION INFORMATION:
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TITLE OF INVENTION: Sti
UUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
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REFERENCE/DOCKET NUMBER: WHI88-08AFA3
TELECOMMUNICATION INFORMATION:
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FILING DATE: 15-JUN-1989
ATTORNEY/AGENT INFORMATION:
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APPLICATION NUMBER: US 07/804,632
FILING DATE: 09-DEC-1991
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APPLICATION NUMBER:
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APPLICATION NUMBER:
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                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 06-JUN
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CITY: Lexington
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                  TELEPHONE:
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                (617) 861-6240
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                                                                                                                                                                                                                                             Release #1.0, Version #1.25
                                                                                                                                       US 08/073,381
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Pred. No. 2.7e-12;
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PCT-US94-06362-4
Sequence 4, Application PC/TUS9406362
GENERAL INFORMATION:
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Search completed: October 17, 2002, 17:30:15 Job time: 14.037 secs
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TRIEPHONE: (617) bu. ...

INFORMATION FOR SEQ ID NO: 4:

SEQUENCE CHARACTERISTICS:

LENCTH: 540 amino acids

TYPE: amino acid

TOPOLOGY: linear
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                                                                                                                                                  Query Match 100.0%; Score 122; DB 5; Best Local Similarity 100.0%; Pred. No. 2.7e-12; Matches 22; Conservative 0; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 100.0%; Score 122; DB 5; Length 540; Best Local Similarity 100.0%; Pred. No. 2.7e-12; Matches 22; Conservative 0; Mismatches 0; Indels
                                                                                                                                                                                                                                                                                                                                                             PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 08/073,381

FILING DATE: 04-JUN-1993

ATTORNEY/AGENT INFORMATION:

NAME: Granahan, Patricia

REGISTRATION NUMBER: 32,227

REFERENCE/DOCKET NUMBER: WHI88-08AFA2 PCT

TELECOMMUNICATION INFORMATION:

TELEPHONE: (617) 861-6240

TENTORMATION ECD SEC IN NO. 4.
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LENGTH: 540 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PATEN: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Version #1.25
CURRENT APPLICATION DATA:
APPLICATION UMBER: PCT/US94/06362
FILING DATE: 06-JUN-1994
CLASSIFICATION:
                                                                                                                                                                                                                                               TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION: Stress Proteins and Uses Therefor NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
ADDRESSEE: Hamilton, Brook, Smith & Reynolds, P.C. STREET: 2 Militia Drive
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CITY: Lexington
STATE: MA
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                                                                         COUNTRY: U. ZIP: 02173
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 USA
                                                                                                                                                                                         Length 540;
                                                                                                                                                        Indels
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Sequence:
                   Title:
Perfect score:
                                                                                                                                                 OM protein - protein search, using sw model
                                                                   October 17, 2002, 17:25:57; Search time 30.963 Seconds (without alignments) 78.921 Million cell updates/sec
                                     US-09-847-637B-1
 GPKGRNVVLEKKWGAPTITNDG
                                                                                                                                                                                                         Copyright
                                                                                                                                                                                                         GenCore version 5.1.3 (c) 1993 - 2002 Compugen Ltd.
22
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Searched: Scoring table: BLOSUM62 Gapop 10.0 , Gapext 0.5 747574 segs, 111073796 residues

al number of hits satisfying chosen parameters:

Minimum DB: seq length: 0 seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_032802:*

1: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1980.DAT: *
2: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1981.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1982.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1983.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1984.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1985.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1987.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1988.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1989.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1991.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1991.DAT: *
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3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1995.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1995.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1999.DAT: *
3: /SIDS1/gcgdata/geneseq/geneseqp-emb1/AA1999.D

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution. Pred. No.

Mycobacterium tube	AAW44702	19	540	100.0	122	11
Mycobacteria sp. h	AAW32100	18	540	100.0	122	10
Mycobacterium tube	AAR81610	16	540	100.0	122	
Sequence of Mycoba	AAP81351	9	540	100.0	122	- α
Amino acid sequenc	AAY23919		539	100.0	122	7
Amino acid sequenc	AAY14891	20	523	100.0	122	١٥
M. vaccae antiqen	AAW60144	19	523	100.0	122	· U
Amino acid sequenc	AAB31615	22	295	100.0	122	4
Amino acid sequenc	AAY14892	20	215	100.0	122	. (4
M. vaccae antigen	AAW60145	19	215	100.0	122	ı K
Amino acid sequenc	AAY93328	21	22	100.0	122	, ш
Description	ID	BB	Match Length DB	Match	Score	No.
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	000000000000000000000000000000000000000					

44 44 45	140 100 100 100 100 100 100 100 100 100	332 332 333 3433	222222222222222222222222222222222222222	12 13 14 15 16 17
00000 00000 00000	107 107 103 103	122 122 122 122 122 117 116	122 122 122 122 122 122 122	122 122 122 122 122 122
80.3 80.3 80.3	91.0 87.7 87.7 84.4 82.8	100.0 100.0 100.0 100.0 95.9 95.1	100.0	100.0
540 540 541	5444 5444 5444 5444	55606388 5489688	541 541 572 573	5440 5440
22222			110 200 110 110 110 110 110 110 110 110 110 1	
AAY23906 ABG24445 AAM01101 AAY23902 AAY23903		AAP80364 AAB03790 AAB31609 AAB31614 AAB31611 AAU63908 AAR94368 AAR94368	>	AAY23911 AAY93332 AAE11755 AAG81118 AAB31606 AAR67384 AAY14909
Amino acid sequenc Novel human diagno CFE 104 protein se Streptococcus pneu Streptococcus pyog	Propionibacterium Propionibacterium GroEL-1 protein pa GroEL-1 protein. Heat shock protein Amino acid sequenc Consensus mino aci	M. leprae 65kD ant Heat shock protein Amino acid sequenc Amino acid sequenc Amino acid sequenc Propionibacterium Brevibacterium fla	act acc	Amino acid sequenc Amino acid sequenc Mycobacterium tube Mycobacterium tube Mycobacterium tube Amino acid sequenc M. leprae GroEL1 g

ALIGNMENTS

RESULT 1
AAY93328
ID AAY9 04-SEP-2000 (first entry) AAY93328; AAY93328 standard; peptide; 22 ₽

Amino acid sequence of an epitope of heat shock protein

Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease; inflammatory disorder; arthritis.

Mycobacterium tuberculosis.

WO200027870-A1

18-MAY-2000.

04-NOV-1999; 99WO-IL00595

05-NOV-1998; 98US-0107213

(HADA-) HADASIT MEDICAL RES SERVICES & DEV

Naparstek Y, Ulmansky R, Kashi Y;

WPI; 2000-376486/32.

Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -

Claim 1; Page 7; 58pp; English.

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*3555555*
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Matches
                                   treatment and prevention of infectious diseases caused by mycobacteria such as M. vaccae, M. avium or M. tuberculosis. The products also have the ability to induce cell proliferation and cytokine production (e.g. interferon-gamma and interleukin-12 production) in T cells, NK cells, B cells, or macrophages. They can be used for enhancing immune responses
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents an epitope of the heat shock p 60 (Hsp60) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferrin immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
                                                                                                      This represents a Mycobacterium vaccae antigen GV-27A. The invention provides M. vaccae polypeptides that comprise an immunogenic portion of a soluble M. vaccae antigen, or a variant, where the antigen induces an immune response in patients previously exposed to a mycobacterium. Such M. vaccae polypeptides can be used in methods for enhancing non-specific immune response. The methods and products can be used for the detection,
                                                                                                                                                                                                       Claim 48; Pages 117-118; 153pp; English.
Sequence 🔀
                                                                                                                                                                                                                                                Mycobacterium vaccae polypeptides - used to develop products for use in detection, therapy and prevention of mycobacteria infections or
                                                                                                                                                                                                                                                                                                        WPI;
                                                                                                                                                                                                                                                                                                                                   Visser
                                                                                                                                                                                                                                                                                                                                              Hiyama
                                                                                                                                                                                                                                                                                                                                                                                                   12-JUN-1997;
29-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium vaccae; antigen; therapy; prevention; cytokine production; M. avium; M. tuberculosis; immune response enhancer; cell proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           M. vaccae antigen GV-27A sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW60145;
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                                                                                                                                                                                                                                                                                                                                                                                                                                            28-AUG-1997;
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                            in vaccines
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  215
                                                                                                                                                                                                                                                                                                                                              Prestidge
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            vaccae
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96US-0705347
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matches 0;
                            of.
                                                                                                                                                                                                                                                                                                                                              Skinner
                            infectious
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                            diseases
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AA;

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RESULT 3
AAY14892
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Query Match
Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                04-DEC-1998;
23-DEC-1997;
23-DEC-1997;
                                                                                                                                           M. vaccae proteins. The M. vaccae proteins may be employed to activate T cells and natural killer cells, to stimulate the production of cytokines, to enhance the expression of co-stimulatory molecules on dendritic cells and monocytes, and to enhance dendritic cell maturation and function. The proteins can be expressed by standard recombinant methodology. Pharmaceutical compositions comprising the proteins or nucleic acid sequences encoding the proteins can be used for the treatment, prevention, and detection of disorders including infectious dispasses.
                                                                                                          diseases, immune disorders and cancer. In particular, the compounds methods are used for treatment of diseases of the respiratory system such as mycobacterial infections, asthma, allergies, tuberculosis,
                                    Sequence
                                                                      leprosy, sarcoidosis and lung cancers, and disorders of the skin such as psoriasis, atopic dermatitis, eczema, allergic contact dermatitis, alopecia areata, and skin cancers such as basal carcinoma, squamous cell
                                                                                                                                                                                                                                                                                                                                                                                                                         23-DEC-1997;
11-JUN-1998;
                                                                                                                                                                                                                                                  The invention provides heat-killed Mycobacterium vaccae,
                                                                                                                                                                                                                                                                        Example 14; Page 191-192; 243pp; English.
                                                                                                                                                                                                                                                                                                 Enhancing immune response
                                                                                                                                                                                                                                                                                                                           N-PSDB; AAZ11344
                                                                                                                                                                                                                                                                                                                                                              Prestidge RL,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            dermatitis; eczema; alopecia areata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        respiratory system; mycobacterial infection; allergy; tuberculosis; leprosy; sarcoidosis; lung cancer; asthma; skin disorder; psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   dendritic cell
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mycobacterium vaccae protein;
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                                                                                                                                                                                                                                                                                                                                                                                     (GENE-)
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                                                                                                                                                                                                                                                                                                                                                                                                                        97US-0996624.
97US-0997080.
97US-0997362.
98US-0095855.
                                     Ą,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  maturation;
                                                                                                                                                                                                                                                                                                                                                               Skinner
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infectious
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Score 122; DB 20;
Pred. No. 4.1e-12;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             T cell activation; cytokine;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              cancer;
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           Length
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   disorder;
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                                                                                                                         system,
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RESULT 5
AAW60144
ID AAW6
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AAB31615
ID AAB3
XX
AC AAB3
DT 30-A
XX
DE Amin
XX
KW Heat
KW Lymg
                                                                                                                                                        Matches
                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heat shock plymphocyte; E7 protein.
                                                                                                                                                                                                                                                      The present sequence represents a fusion protein comprising Mycobacterium bovis heat shock protein (Hsp) 65 fused at 1ts C terminal to a HPV16 E7 protein. The fusion protein is used in the method of the invention. The specification describes a method of determining whether a compound stimulates a Thi-like response. Thi cells are a subset of CD4+ T lymphocyte cells. The method comprises contacting naive lymphocytes in vitro with a fusion protein comprising at least a fragment of Hsp, and then detecting the THI-like response exhibited by the cell sample. The proteins which may be used in the method of the invention are Hsp65, Hsp40, Hsp10, Hsp60, and Hsp71. The method may be used to identify compounds that stimulate Thi-like responses in response to microbial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       WPI; 2001-138361/14.
N-PSDB; AAF25022.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Synthetic.
Mycobacterium bovis.
Human papillomavirus
                  AAW60144 standard;
                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 12; Fig 11;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Screening for compounds that stimulate Thi-like responses in
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Siegel M,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             08-JUL-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         10-JUL-2000; 2000WO-US18828
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WO200104344-A2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Amino acid sequence of Hsp65-E7 fusion
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  30-APR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (STRE-) STRESSGEN BIOTECHNOLOGIES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              AAB31615 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         lymphocyte cells
                                                                                              μ
                                                                                                                                                      Local Similarity
les 22; Conserv
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                                                                                                                       1 GPKGRNVVLEKKWGAPTITNDG
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                                                                                         GPKGRNVVLEKKWGAPTITNDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         t protein;
; Hsp65; H
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chu NR,
                                                                                                                                                                                                                295 AA;
                                                                                                                                                    100.0%;
ilarity 100.0%;
Conservative (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9908-0143757
                  Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hsp; Thl response; 'Hsp40; Hsp10; Hsp60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                           88pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mizzen
                    523
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                                                                                                                                                                      Pred. No.
                                                                                                                                                                                 Score 122;
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                                                                                                                                                      Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Th1 cell;
); Hsp71; mi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     protein.
                                                                                                                                                                   6e-12;
                                                                                                                                                                                 DB 22;
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ID AAV1
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                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local !
                                                                                                                                                                                                                                                                                                        Matches
Mycobacterium vaccae protein; antigen; T cell activation; cytokine; dendritic cell maturation; infectious disease; immune disorder; can respiratory system; mycobacterial infection; allergy; tuberculogis; leprosy; sarcoidosis; lung cancer; asthma; skin disorder; psoriasis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This represents a Mycobacterium vaccae antigen GV-27. The invention of provides M. vaccae polypeptides that comprise an immunogenic portion of a soluble M. vaccae antigen, or a variant, where the antigen induces an immune response in patients previously exposed to a mycobacterium. Such M. vaccae polypeptides can be used in methods for enhancing non-specific immune response. The methods and products can be used for the detection,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Hiyama
Visser
                                                                                                                                                                                                                                                                                                                                                                                        treatment and prevention of infectious diseases caused by mycobacteria such as M. vaccae, M. avium or M. tuberculosis. The products also have the ability to induce cell proliferation and cytokine production (e.g. interferon-gamma and interleukin-12 production) in T cells, NK cells, B cells, or macrophages. They can be used for enhancing immune response for use in vaccines or immunotherapy of infectious diseases and cancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycobacterium vaccae polypeptides - used to in detection, therapy and prevention of myco as immune response enhancers
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       M. avium; M. mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium vaccae; antigen; therapy; prevention; cytokine production; M. avium; M. tuberculosis; immune response enhancer; cell proliferation;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Claim 47; Pages 115-116; 153pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mycobacterium
                                                                            Amino
                                                                                                         25-OCT-1999
                                                                                                                                     AAY14891;
                                                                                                                                                                   AAY14891 standard;
                                                                                                                                                                                                                                                                                                                                                                  Sequence
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29-AUG-1996;
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                                                                                                                                                                                                                                                            1 GPKGRNVVLEKKWGAPTITNDG
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DB; AAV34608.
                                                                                                                                                                                                                                            GPKGRNVVLEKKWGAPTITNDG
                                                                            acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 E C
                                                                                                                                                                                                                                                                                                                    Similarity
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                                                                                                       (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       infection; vaccine; cancer.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             vaccae.
                                                                                                                                                                                                                                                                                                                                                                  AA;
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96US-0705347.
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                                                                                                                                                                   protein;
                                                                           of M.
                                                                                                                                                                                                                                                                                                                    100.0%;
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                                                                         vaccae antigen GV-27.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Scott LM,
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                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                                                                                                                                                     Score 122; DB 19;
Pred. No. 1.2e-11;
; Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             English.
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RESULT 7
AAY23919
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23-DEC-1997;
11-JUN-1998;
17-SEP-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        M. vaccae proteins. The M. vaccae proteins may be employed to activate T cells and natural killer cells, to stimulatory molecules on cytokines, to enhance the expression of co-stimulatory molecules on dendritic cells and monocytes, and to enhance dendritic cell maturation and function. The proteins can be expressed by standard recombinant methodology. Pharmaceutical compositions comprising the proteins or nucleic acid sequences encoding the proteins can be used for the treatment, prevention, and detection of disorders including infectious diseases, immune disorders and cancer. In particular, the compounds and methods are used for treatment of diseases of the respiratory system, such as mycobacterial infections, asthma, allergies, tuberculosis, leprosy, sarcoidosis and lung cancers, and disorders of the skin such as psoriasis, atopic dermatitis, eczema, allergic contact dermatitis, accema, allergic contact dermatitis,
                                                                                                                                                                                                                                                                    AAY23919 standard; Protein; 539
                                          Tsukamurella sp
                                                                                cancer
                                                                                               Heat shock protein; Hsp; immune response; immunological carrier;
                                                                                                                                              Amino
                                                                                                                                                                                      22-SEP-1999
                                                                                                                                                                                                                              AAY23919
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The invention provides heat-killed Mycobacterium vaccae,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 14; Page 189-190; 243pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Enhancing immune response to an antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        N-PSDB; AAZ11343
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 04-DEC-1998;
23-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         dermatitis; eczema; alopecia areata; skin cancer; basal carcinoma; squamous cell carcinoma; melanoma.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             carcinoma
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                23-DEC-1998;
                                                                                                                                                                                                                                                                                                                                                                        31
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                                                                                                                                                                                                                                                                                                                                                                                           GPKGRNVVLEKKWGAPTITNDG 22
                                                                                                                                                                                                                                                                                                                                                                        GPKGRNVVLEKKWGAPTITNDG
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                                                                                                                                              acid
                                                                                control;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             and melanoma.
                                                                                                                                           sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     523
                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                    (first entry)
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97US-0997362.
98US-0095855.
98US-0156181.
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97US-0996624
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                                                                                  tumour;
                                                                                                                                           of a
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                                                                            sarcoma; cancer; gene therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                         . 0 %
                                                                                                                                           heat shock protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Tan
                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 122; DB 20;
Pred. No. 1.2e-11;
); Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             523;
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C
                                                                                                                                                                                                                                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    recombinant
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DR PAR PROPERTY OF THE PROPERT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   RESULT
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            response to a target antigen fused to the protein. Unlike other immunological carriers, Hsp60 proteins are not immunosuppressive so provide an increased response to any conjugated or fused antigen. Also, where used for cancer control, they lack the side effects associated with endotoxins. They can also be used to detect specific antibodies and in treatment or prevention of tumours (e.g. sarcoma or cancers of broad to the control of tumours).
WPI; 1988-271136/38
                                      Shinnick T,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  breast, ovary, prostate, lung, pancreas or liver). The Hsp60 polynucleotide is used for recombinant production of the protein, a source of primers and probes for detecting streptococci in stan hybridization/amplification assays, and therapeutically in gene
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAY23905-30 represent heat shock proteins (Hsps). The specification describes Streptococcal Hsps, designated Hsp60. These proteins, their fragments, variants and fusion proteins, are used to elicit or enhance
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   New nucleic acid encoding heat shock protein-60 from Streptococcus, useful in vaccines, as carriers for other immunogens, as anticancer agents and for diagnosis
                                                                                                                        24-FEB-1988;
                                                                                                                                                                                                     07-SEP-1988
                                                                                                                                                                                                                                               WO8806591-A
                                                                                                                                                                                                                                                                                     Mycobacterium
                                                                                                                                                                                                                                                                                                                           Diagnosis; assay; M.bovis; vaccine
                                                                                                                                                                                                                                                                                                                                                                    Sequence of Mycobacterium tuberculosis 540 AA residue protein.
                                                                                                                                                                                                                                                                                                                                                                                                            29-DEC-1990
                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP81351;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                              (SCRI-) SCRIPPS CLINIC & RE
                                                                                                                                                               25-FEB-1988;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAP81351 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   therapy vectors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         an immune response against Streptococcus, and to elicit a similar
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             31-DEC-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   1 GPKGRNVVLEKKWGAPTITNDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Fig 10A-E; 176pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
                                      Houghten
                                                                                                                                                                                                                                                                                                                                                                                                            (first entry)
                                                                                                                                                                                                                                                                                     tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ΑĄ,
                                                                                                                      88US-0159667
                                                                                                                                                               88WO-US00598
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        protein;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               540
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Pred. No. 1.
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.2e-11;
s 0;
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Indels Length

Gaps

0;

539; 0;

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RESULT 9
AAR81610
ID AAR8
XX
AC AARR
XY
DT 09-H
XX
WGC
XX
WGC
XX
Heat
KW Heat
KW mult
KW mult
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PN WO95
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                                                                                                                                                                                                                                                                                                                                                                                                                          10-OCT-1994;
21-MAR-1994;
22-MAR-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                An isolated DNA molecule that consists essentially of the nucleotide sequence that corresponds to the sequence represented by position 3950 to about 2300 and from position 3948 through position 2398 of AAN81768 is claimed. Also claimed is a peptide sequence that consists of a 5-40 AA residue sequence that corresponds to a sequence of the 540 AA residu protein (AAP81351) or the 517 AA residue protein (AA
This sequence represents the heat shock protein hsp65 of Mycobacterium tuberculosis. The peptide fragments of this sequence represented by AAR81611-R81623 were used to immunise rat T-cells. These peptide fragments represent regions of stress proteins that are highly conserved.
                                                                                                                                                                                  Microbial stress protein fragments containing epitope(s) homologous to related mammalian epitope(s) - used to treat and prevent inflammation e.g. auto:immune diseases, also nucleic acids, vectors
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Recombinant mycobacterial peptide(s) - used in assays for diagnosis of infection, for producing vaccines and for producing antibodies
                                                                                                                                                                                                                                                                                                                                    Anderton
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      multiple sclerosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               09-MAY-1996
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Disclosure; Fig 2a-2d; 116pp; English.
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                                                                                                                       Claim
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         21-MAR-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Heat shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               for producing a vaccine.
                                                                                                                                                                                                                                                                                                                                                                                (UYUT-) RIJKSUNIV UTRECHT.
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                                                                                                                                                                                                                                                                                                                                  , MS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          protein; disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   540
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       100.0%; ilarity 100.0%; Conservative
                                                                                                                     13;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              tuberculosis heat shock protein hsp65
                                                                                                                                                                                                                                                                                                                                  Van Der
                                                                                                                                                                                                                                                                                                                                                                                                                          94EP-0202927.
94EP-0200721.
94EP-0200738.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95WO-NL00108
                                                                                                                                                                      cells
                                                                                                                65pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          mycobacterium tuberculosis; inflammatory disease;
diabetes; arthritis; atherosclerosis; antibody;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      myasthemia
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                                                                                                                  English.
                                                                                                                                                                                                                                                                                                                                  ₽,
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Pred. No.
                                                                                                                                                                                                                                                                                                                                  Van
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    gravis; transplant rejection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            ₽
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122; DB 9;
No. 1.2e-11;
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AA residue
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      diagnosis
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conserved

Query Match

100

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Score

122;

DВ

18;

Length 540;

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ARESULT 10
AAW32100
ID AAW322
XX AAW32
XX AAW32
XX 08-AP
DT 08-AP
XX Heat
KW rheum
KW prist
XX Wycob
XX Wycob
XX W9071
XX W0971
XX Elson
AW 27-SE
XX 27-SE
XX PF 26-SE
XX PF 27-SE
XX D1scl
XX D1scl
XX This
CC This
CC Where
CC Where
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Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match
                                                          This is the heat shock protein hsp65 which can be used in a novel method to treat autoimmune disease e.g. rheumatoid arthritis. This sequence is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro. HSP's from microbial sources may act as self antigens and thus have limited use whereas the human hsp65 homologue, hsp68 or fragments of the hsp58 protein may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid arthritis. Note: this hsp65 sequence is represented in Figure 4 but differs
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      between microorganisms and animals. The immunisation was carried out in order to protect the rat from inflammatory diseases. The inflammatory diseases that the peptides can be used to treat include autoimmune diseases such as diabetes, arthritis, atherosclerosis, multiple sclerosis and myasthemia gravis. They also prevent transplant rejection. Antibodies raised against the peptide sequences can be used in diagnosis, e.g. to measure expression of the epitopes at sites of inflammation, or to measure T-cell proliferation or cytokine production. The antibodies can also be used for passive immunisation. The peptide fragments corresponding to similar regions of mammalian stress proteins do not
                               slightly from the AAW32099).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    pristane induced arthritis;
Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      03-APR-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heat shock protein; he
rheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacteria sp.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            elicit a protective response.
                                                                                                                                                                                                                         Disclosure; Fig 4; 91pp; English
                                                                                                                                                                                                                                                      Polypeptide(s) derived from microbial heat shock protein - for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                        Elson
                                                                                                                                                                                                                                                                                                                                                                                                      27-SEP-1995;
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                                                                                                                                                                                                                                                                                                                                                                      (PEPT-)
                                                                                                                                                                                                                                                                                                                                                                                                                                    26-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Heat shock
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                                                                                                                                                                                                                                                                                                                                        Thompson
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                                                                                                                                                                                                                                                                                                                                                                        THERAPEUTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  heat shock protein
                                              hsp65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hsp58; human;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             100
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   antigen;
                                              sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PIA; vaccine.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            0
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                                                                                                                                                                                                                                                                                                                                                                        LTD.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score 122; DB 16;
Pred. No. 1.2e-11;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    infectious
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                                              given
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    autoimmune disease; hsp65;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65 (hsp65) #2
                                              in the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    disease;
                                              sequence specification
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Length
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                                                                                                                                                                                                                                                                          useful
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RESULT 11
AAW44702
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   Query Match
Best Local Sir
Matches 22;
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                                                                                                                                                                                                                                                                                                                                                                                                          preventing an autoimmune disease in a mammal comprises: (a) providing a particle coated with an antigen against which an immune response is mounted in the autoimmune disease; (b) delivering the particle into the recipient cell of the mammal; and (c) repeating step (b) until either a reduction in a cytotoxic immune response or a desensitizing immune response is induced in the mammal. Alternatively, step (a) comprises providing a nucleic acid construct comprising a coding sequence for the antigen, operably linked to control elements such that the coding sequence can be transcribed and translated in a recipient cell, and delivering the construct to the control control control in the mammal control cell manual control co
                                                                                                                                                                             thereof. These antigens mitigate cycoroxic is antigen desensitisation. The method is used rheumatoid arthritis or multiple sclerosis. use for the previously known Mt Hsp65.
                                                                                                                                                                                                                                                                                            the recipient cell using a gene gun. The antigen of step (a) is selected from collagen, Mt Hsp65, myelin basic protein, myelin oligodendrocyte glycoprotein, proteolipid protein, and epitopes thereof. These antigens mitigate cytotoxic responses and elicit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacterium tuberculosis. This protein cross-reacts with a component of articular cartilage, human Hsp60, that is up-regulated
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Treatment of autoimmune diseases autoantigen-coated particles or a
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Haynes JR,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     03-JUN-1997;
03-JUN-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                03-JUN-1997;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  in the joints of arthritic patients. The Mt Hsp65 gene sequence (see AAV05708) is also provided. A claimed method for treating or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This protein comprises the 65 kDa heat shock protein, Mt Hsp65, of
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    construct
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-DEC-1997.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (AURA-) AURAGEN INC.
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DB; AAV05708.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2
                                 Similarity
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96US-0019100
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100.0%; P
ative 0;
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Score 122; DB 19;
Pred. No. 1.2e-11;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pred. No. 1.2e-11;
Mismatches 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     kDa heat shock protein (Hsp65).
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autoantigen-encoding
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                                                                  Length
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ID AAY23911
AC AAY23912
AC AAY23912
AC AAY2391
AC AAY23
AC AAY23
AC AAY23
AC AMINO
XX Heat
KW Heat
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                                                                                             RESULT 13
AAY93332
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Best Local 9
                                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAY23905-30 represent heat shock proteins (Hsps). The specification describes Streptococcal Hsps, designated Hsp60. These proteins, their fragments, variants and fusion proteins, are used to elicit or enhance an immune response against Streptococcus, and to elicit a similar response to a target antigen fused to the protein. Unlike other immunological carriers, Hsp60 proteins are not immunosuppressive so provide an increased response to any conjugated or fused antigen. Also, where used for cancer control, they lack the side effects associated with endotoxins. They can also be used to detect specific antibodies and in treatment or prevention of tumours (e.g. sarcoma or cancers of breast, ovary, prostate, lung, pancreas or liver). The Hsp60 polynucleotide is used for recombinant production of the protein, as a source of primers and probes for detecting streptococci in standard but of the protein in standard but of the p
                                                                  AAY93332 standard; peptide; 540 AA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   useful
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig 10A-E; 176pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New nucleic acid encoding heat shock protein-60 from Streptococcus,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1999-430397/36
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                31-DEC-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         29-DEC-1998;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Amino acid sequence of a heat shock protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    22-SEP-1999
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hybridization/amplification assays, and therapeutically in gene
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22; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in vaccines, as carriers for other immunogens, as anticancer
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       vectors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Wisniewski J;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         for diagnosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          540 AA;
                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                           0;
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                                                                                                                                                                                                                                                                                                                                                        Score 122; DB 20;
Pred. No. 1.2e-11;
: Mismatches 0;
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Best Local S
Matches 22
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                                                                                                                                                                        antiallergic; immunomodulator; dermatological; immunosuppressive; vascular disorder; immune response; vascular disorder; immune response; atherosclerosis; allergic angittis; Behcet's syndrome; granulomatosis; Churg-Strauss disease; Cogan's syndrome; graft-versus-host disease; GvHD; Henoch-Schonlein purpura; Leucocytoclastic vasculitis; Kawasaki disease; polyarteritis nodosa; PAN; Takayasu's arteritis; temporal arteritis; polyarteritis; polyarteritis; polyarteritis; temporal arteritis; polyarteritis; polyarte
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence represents a heat shock protein 60 (Hap60) of Mycobacterium tuberculosis. The specification describes epitopes of Hap60 proteins, which are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacterium tuberculosis heat shock protein 65 (HSP65).
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-SEP-2000
                                                              Mycobacterium tuberculosis
                                                                                                                         microscopic
                                                                                                                                                                                                                                                                                                                                                                                         Heat shock protein 65; HSP65; antiarteriosclerotic; antiinflammatory;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAE11755;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAE11755 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WO200027870-A1
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                                                                                                                                                  polyangiitis overlap syndrome;
thromboangiitis obliterans; Wec
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                                                                                                                      polyangiitis.
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Wegener's granulomatos
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Pred. No. 1.2e-11;
; Mismatches 0;
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RESULT 15
AAG81118
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                            12-NOV-1999;
12-NOV-1999;
01-FEB-2000;
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                                                                                                                                                                                                                                                                                                                                                                                         target;
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mammals. The method involves administering a composition comprising care at least one agent selected from heat shock protein (HSP), its fragment or at least one agent selected from heat shock protein (HSP), its fragment crown to be inhalation. Compositions comprising HSP are useful for treating and suppressing a vascular disorder, including cell-mediated immune response, an antibody-mediated immune response, cell-mediated compositions (Churg-Strauss disease), Cogan's syndrome, granulomatosis (Churg-Strauss disease), Cogan's syndrome, granulomatosis (Churg-Strauss disease), Cogan's syndrome, granulomatosis (Churg-Strauss disease), Cogan's syndrome, coll-mediated compositions, polyanitis, polyarteritis nodosa (PAN), compositions, polyangiitis, polyarteritis nodosa (PAN), compositions, polyangiitis, corrlap syndrome, Takayasu's contential, temporal arteritis, transplant rejection, Wegener's compositions of the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the present sequence is heat shock protein 65 (HSP65) from the pres
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                                                                                                                                                                                                                                                                       Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           The patent discloses methods for treating vascular disorders
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Disclosure; Page 11;
                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium tuberculosis potential drug target protein SEQ
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; Protein;
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990S-0165086.
990S-0165124.
2000US-0179531.
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                                                                                                                                                                                                                                                                                                                          growth;
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Pred. No. 1.2e-11;
; Mismatches 0;
                                                                                                                                                                                                                                                                                                                          viability; characterisation
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inhalation
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Search completed: October 17, 2002, 17:27:23 Job time : 32.963 secs
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                                                                                                                                                                                                                             Query Match
Best Local Similarity 100.
                                                                                                                                                                                                                                                         This invention relates to a method for identifying a nucleotide or polypeptide sequence that may be a drug target, or essential for growth or viability of an organism. Polynucleotide sequences AAH51947 - AAH52092 represent DNA encoding proteins AAG81096 - AAG81241, Mycobacterium tuberculosis proteins which are potential drug targets. The DNA and protein sequences are used to illustrate the method of the invention. The method involves providing an unknown nucleotide or polypeptide sequences, and comparing it to a number of sequences along with at least one algorithm capable of analysing a functional relationship between nucleotide and polypeptide sequences. The method is useful for characterising the function of nucleic acids and polypeptides that may be useful as a target for a drug or essential for the growth or viability of an organism.
                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Identifying nucleotide or polypeptide sequence for use as drug target, involves providing algorithm that analyzes a functional relationship between nucleotide or polypeptide sequences, and comparing the sequences.
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N-PSDB; AAH51969.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  sequences
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (REGC ) UNIV CALIFORNIA.
                                                                         540 AA;
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                                                                                                                                              100.0%; Score 122; DB 22;
100.0%; Pred. No. 1.2e-11;
tive 0; Mismatches 0;
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

	28																	11			80	-		ഗ		w	N		Result No. Score	
99	100	100	100	101	101	101	101	102	103	103	103	103	103	103	103	103	103	103	103	107	107	112	122	122	122	122	122	122		
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S22342	47	BVYCGL	S68249	S34938	AG2263	T06829	S73270	S70013	B83720	JC6063	B41884	JC5130	F97232	B41872	AD1333	AC1704	S72614	в49855	JQ1195	T35591	B41325	H72367	A25902	T44725	S40245	C41325	A43509	A26950	ID	
chaperonin HSP60 -		chaperonin groEL -	chaperonin groEL h			chaperonin groEL -		chaperonin-like pr	class I heat-shock	5	hock p			heat shock protein	н	at-sho		shock		eronin	ᅂ	ä	; ;	chaperonin 60K [im	heat shock protein	heat shock protein	65K antigen mbaA -	EL2 protein -	Description	

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chaperonin 60 - Co	60K heat shock pro	GroEL protein (imp	hypothetical prote	groEL protein - De	chaperonin GroEL [chaperonin großL -	GroEL protein PA43	heat shock protein	heat-shock protein	chaperonin, 60 Kd	chaperonin GroEL [chaperonin, 60 kDa	60 KD chaperonin (groEL protein - La	heat shock protein

ALIGNMENTS

RESULT 2 A43509 65K antigen mbaA - Mycobacterium bovis C;Species: Mycobacterium bovis C;Species: Mycobacterium bovis C;Cate: 28-Oct-1992 #sequence_revision 28-Oct-1992 #text_change 26-Aug-1999 C;Accession: A43509 R;Thole, J.E.R.; Keulen, W.J.; Kolk, A.H.J.; Groothuis, D.G.; Berwald, L.G.; Tiesjemal Infect. Immun. 55, 1466-1475, 1987 A;Title: Characterization, sequence determination, and immunogenicity of a 64-kilodall A;Reference number: A43509; MUID:87193155	Query Match 100.0%; Score 122; DB 2; Length 540; Best Local Similarity 100.0%; Pred. No. 9.5e-11; Matches 22; Conservative 0; Mismatches 0; Indels 0; Gaps 0; Qy 1 GPKGRNVVLEKKWGAPTITNDG 22	A;Accession: A70830 A;Status: preliminary; nucleic acid sequence not shown; translation not shown A;Molecule type: DNA A;Residues: 1-540 <col/> A;Cross-references: GB:ALO21932; GB:AL123456; NID:g3261527; PIDN:CAA17397.1; PID:g290 A;Experimental source: strain H37Rv C;Genetics: A;Gene: groEL2; Rv0440 C;Superfamily: chaperonin groEL	A; Residues: 1-540 CSHI'> A; Cross-references: GB:M15467; NID:g149999; PIDN:AAA88232.1; PID:g150000 A; Cross-references: GB:M15467; NID:g149999; PIDN:AAA88232.1; PID:g150000 R; Cole, S.T.; Brosch, R.; Parkhill, J.; Garnier, T.; Churcher, C.; Hamiln, N.; Holroyd, ; Connor, R.; Davies, R.; Deviln, K.; Feltwell, T.; Gentles, S.; Hamiln, N.; Holroyd, Rajandream, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S. Nature 393, 537-544, 1998 A; Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G. A; Title: Deciphering the biology of Mycobacterium tuberculosis from the complete gence A; Reference number: A70500; MUID:98295987 A; Reference number: A70500; MUID:98295987	RESULT 1 A26950 groEL2 protein - Mycobacterium tuberculosis (strain H37RV) N;Alternate names: 65K antigen C;Species: Mycobacterium tuberculosis C;Date: 02-Jun-1988 #sequence_revision 02-Jun-1988 #text_change 20-Jun-2000 C;Accession: A26950; A70830 R;Shinnick, T.M. J. Bacteriol. 169, 1080-1088, 1987 A;Title: The 65-kilodalton antigen of Mycobacterium tuberculosis. A;Reference number: A26950; MUID:87137260 A;Molecule type: DNA

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C;Genetics:
A;Gene: groEL2
C;Superfamily:
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A;Molecule type: DNA
A;Molecule type: DNA
A;Residus: 1-540 <THO>
A;Cross-references: GB:M17705; NID:g149933; PIDN:AAA25358.1; PID:g149934
C;Superfamily: chaperonin groEL
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A;Molecule type: DNA
A;Residues: 1-541 <COL>
                                                                                                                                                                                                                                                                                                                                              te: 06-Jan-1995 *sequence_revision ression: X40245

R. Liston, X.Y.Z.; McConnell, X.Y.Z.; E submitted to the EMBL Data Library, Aug A; Description: Cloning and expression c
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  RESULT
S40245
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   chaperonin (
N;Alternate
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A; Residues: 1-540 <MAZ>
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J. Bacteriol. 173, 7382-7386, 1991
A;Tille: Characterization of the groEL-like genes
A;Reference number: A41325; MUID:92041639
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A; Accession: C41325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         heat shock protein 56 - Streptomyces albus
N;Alternate names: heat shock protein groEL homolog 2
pecies: Streptomyces albus
Ate: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 26-Aug-1999
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Matches 22
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60K [imported] - My
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MBL Data Library, August 1993
ning and expression of Mycobacterium
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                  Mycobacterium
 protein
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0; Mismatches
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Pred. No. 9.5e-11;
; Mismatches 0;
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. 9.5e-11;
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C; Species: Mycobacte:
C; Date: 21-Jan-2000
C; Accession: T44725
R; James, K.D.; Parkh
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C;Date: 02-Jun-1988 #sequence_revision 02-Jun-19
C;Accession: A25902
R;Mehra, V.; Sweetser, D.; Young, R.A.
Proc. Natl. Acad. Sci. U.S.A. 83, 7013-7017, 198
A;Title: Efficient mapping of protein antigenic
A;Reference number: A25902; MUID:86313701
A;Accession: A25902
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A; Residues: 1-588 <MEH>
C; Superfamily: chaperon
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C;Superfamily: chaperonin groEL
C;Keywords: molecular chaperone
                                                                                                                                                      A; Title: Evidence for lateral gene transfer A; Reference number: A72200; MUID:99287316 A; Accession: H72367
                                                                                                                                                                                                                                                                                     groEL protein - Thermotoga maritima (strain MSB8)
C;Species: Thermotoga maritima
C;Decies: Thermotoga maritima
C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 21-Ju1-2000
C;Accession: H72367
A; Gene: TM0506
C; Superfamily:
                                                                           A; Molecule type: DNA
A; Residues: 1-538 <ARN>
A; Cross-references: GB:
                                                                                                                                                                                                                                                   R;Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.; Dodson, R.J.; Haft, D.H.; Hic Garrett, M.M.; Stewart, A.M.; Cotton, M.D.; Pratt, M.S.; Phillips, C.A.; Richardson,
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A; Residues: 1-541 < JAM>
A; Cross-references: EMB
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A;Accession: T44725
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                                                           A;Experimental
                                                                                                                                  A; Status: preliminary
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 chaperonin groEL
                                                             source:
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No. 9.5e-11;
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Score

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CH60_CHRVI
CH60_GUITH
CH60_GUITH
CH60_LENTAM
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CH60_ENTAM
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CH62_MYCTU
CH62_STRAL
CH60_MYCPA
CH62_MYCLE
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CH60_BACHD
CH62_SYNVU
CH60_PORPU
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CH60_THEBR
CH60_BACSU
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CH60_BACP3
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CH61_STRAL
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9 synechococc
3 chromatium
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9 mycobacteri
6 thermotoga
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Matches 22
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16-0CT-2001 (Rel. 40, 1
16-0CT-2001 (Rel. 40, 1
16-0CT-2001 (Rel. 40, 1
60 kba chaperonin 2 (Pa
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=1916;
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            30
            GPKGRNVVLEKKWGAPTITNDG
                                                                          Similarity
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80.3 540 1 CH60_ENTAE 80.3 540 1 CH60_ERWAP 80.3 540 1 CH60_ERWAP 80.3 540 1 CH60_ERWAP 80.3 540 1 CH60_KLEON 80.3 540 1 CH60_KLEON 80.3 540 1 CH60_KLEON 80.3 540 1 CH60_ERRFI 80.3 540 1 CH60_ERRFI 80.3 540 1 CH60_ERWAP 80.3 541 1 CH60_ERWAP 80.3 541 1 CH60_ERWAP 80.3 541 1 CH60_ERWAN	5440 1 5440 1 5440 1 5440 1 5440 1 5441 1 1	98
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CH60_ENTAE CH60_ENWAP CH60_ERWAP CH60_KLEON CH60_KLEON CH60_KLEOX CH60_SERPI CH60_SERMA CH60_SERMA CH60_PANAN CH60_PARAN	066194 066120 066221 066214 066214 066210 066216 066206 066216 066218	_
		CH60_AERSA

PRT;

476

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InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1
PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00296; CHAPERONINS_CPN60; 1.
PROSITE; PS00296; CHAPERONINS_CPN60; 1.
Chaperone; ATP-binding; Multigene family.
INIT_MET

0
BY SIMILARITY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        "Streptomyces lividans groes, groell and groel2 genes.";
Microbiology 143:3563-3571(1997).

-I FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFOLDING AND PROPER ASSEMBLY OF UNFOLDED POLYEEPTIDES GENERATED UNDER STRESS CONDITIONS (BY SIMILARITY).

-I- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO STACKED RINGS 7 SUBUNITS (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                             EMBL; X95971; CAA65226.1; -. HSSP; P45746; 1SRV.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Streptomyces lividans.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                         1 GPKGRNVVLEKKWGAPTITNDG
                                                                                                                                                                                                                476 AA; 50529 MW;
                                                                                                   100.0%; ilarity 100.0%; Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PubMed=9387235;
S., Isiegas C., Marina A., Carrascosa J.L.,
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51
                                                                                                      Score 122; DB 1;
Pred. No. 2.2e-10;
; Mismatches 0;
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(GroEL2 protein).
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Badcock K., Basham D., Brown D., Chillingworth T., Connor R.,
Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd
Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L.,
Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J.,
Rutter S., Seeger K., Skelton S., Squares S., Squares R.,
Sulston J.E., Taylor K., Whitehead S., Barrell B.G.;
"Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
Nature 393:537-544(1998).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE FROM DOVIS; STRAIN=BCG;
SPECIES-M. DOVIS; STRAIN=BCG;
MEDLINE-87193155; PubMed-3553003;
Thole J.E.R., Keulen W.J., Kolk A.H.J., Groot Tiesjema R.H., van Embden J.D.A.;
"Characterization, sequence determination, an "Characterization, sequence determination, an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CH62_MYCTU STANDARD; PRT; 539 AA.
P06806; Q48931; Q48920;
01-JAN-1988 (Rel. 06, Created)
01-CCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
60 kDa chaperonin 2 (Protein Cpn60-2) (groeL protein 2) (65 antigen) (Heat shock protein 65) (Cell wall protein A) (Antigen) (Heat shock protein 65) (Cell wall protein A) (Antigroup) (ROLL2 OR GROEL-2 OR HSP65 OR RV0440 OR MT0456 OR MT04
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPECIES-M.tuberculosis; STRAIN-CDC 1551 / Oshkosh; Fleischmann R.D., Alland D., Eisen J.A., Carpenter L., White (Peterson J., Deby R., Dodson R., Gwinn M.L., Haft D., Hickey Kolonay J.F., Nelson W.C., Umayam L.A., Ermolaeva M.D., Salzbb Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Miku
Rapur V., Li L.L., Hamrick M.R., Plikaytis B.B., Shinning Telenti A., Jacobs W.R. Jr., Banerjee A., Cole S., Yuen Clarridge J.E., Kreiswirth B.N., Musser J.M.; Rapid Mycobacterium species assignment and unambiguous identification of mutations associated with antimicrobia
                                                                                                                                                                                                                                                                                                                                                                                           Ros
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         64-kilodalton protein of Mycobacterium Escherichia coli_K-12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         laboratory
Submitted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Shinnick T.M.;
"The 65-kilodalton antigen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MYCTU
                                                                                                                                                                                                                                                                         SEQUENCE OF 63-182 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                    Submitted (MAY-1996) to
                                                                                                                                                                                                                                                                                                                                                                                                                       SPECIES=M.bovis, and
                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE OF 45-195 FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIES=M.tuberculosis; STRAIN=H37RV;
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NCBI_TaxID=1773, 1765;
                                                                                                                                                                                             MEDLINE=95150784; PubMed=7848059;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mycobacterium bovis.
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                                                                                                                                                                                                                                                                                                                                                                                               Belak K.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     (APR-2001) to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       alton antigen of Mycobacterium tuberculosis.";
169:1080-1088(1987).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          55:1466-1475(1987).
                                                                                                                                                                                                                                     and
                                                                                                                                                                                                                                 M.tuberculosis; STRAIN=TMC410, AND TMC1024;
                                                                                                                                                                                                                                                                                                                                                                                                                               M.tuberculosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                           STRAIN-356,
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   antimicrobial
                                                                                                                                                                                                                                                                                                                                                    databases
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                                                                                                              Shinnick T.M.,
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5 OR MTV037.04.
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               CH62_STRAL
Q00768;
Q1-APR-1993
Q1-JUN-1994
16-OCT-2001
60 kDa chape
                                                                                                                                                                   STRAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; Cpn60_TCP1; 1.
PRINTS; PR00298; CHAPERONING0.
PRINTS; PR00304; TCOMPLEXTCP1.
PROSITE; PS00296; CHAPERONINS_CPN60; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              use by non-profit institutions as long as its content is modified and this statement is not removed. Usage by and for entities requires a license agreement (See http://www.isb-sib
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          EMBL; U17957; AAB39076.
EMBL; S76635; -; NOT_AN
PIR; A26950; A26950.
PIR; A43509; A43509.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      "Detection and identification of mycobacteria by PCR-RI
Rinsho Byori 43:155-161(1995).

-I- FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFO
PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED
CONDITIONS (BY SIMILARITY).

-I- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Complete proteome.
INIT_MET 0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          or send an email to license@isb-sib.ch)
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Katsuyama T.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the EM European Bioinformatics Institute. There are no restr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               7 SUBUNITS (BY SIMILARITY).
MISCELLANEOUS: PURIFIED 65 KDA ANTIGEN CAN ELICIT A STRONG MISCELLANEOUS: PURIFIED 65 KDA ANTIGEN CAN ELICIT A STRONG DELAYED-TYPE HYPERSENSITIVITY REACTION IN EXPERIMENTAL ANIMALS INFECTED WITH M.TUBERCULOSIS. THIS PROTEIN IS ONE OF THE MAJOR IMMUNOREACTIVE PROTEINS OF THE MYCOBACTERIA. THIS ANTIGEN CONTAINS EPITOPES THAT ARE COMMON TO VARIOUS SPECIES OF MYCOBACTERIA. SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   M15467; AAA88232.1; -... AL021932; CAA17397.1; -... AE006948; AAK44679.1; -... M17705; AAA25358.1; -... U55825; AAA25358.1; -... U55825; AAC44451.1; -... U55825; AAC44458.1; -... U17925; AAB39044.1; -... U17925; AAB39076.1; -...
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                    chaperonin
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(Rel.
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                                                                                                                                             STANDARD;
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                 25, Created)29, Last sequence update)40, Last annotation update)2 (Protein Cpn60 2) (groEL
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GenCore version (c) 1993 - 2002
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Q9eur7 streptomyce
P97086 tsukamurell
Q9afa5 tsukamurell
Q9kgwl mycobacteri
Q9afa6 nocardia fa
       Q9kxu5
Q93q12
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Best Local :
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Submitted (OCT-1999) to the EMBL/GenBank/DDBJ datab EMBL; AJ250536; CAC19351.1; -. HSSP; P06139; 1AON.
InterPro; IPR003423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00304; TCOMPLEXTCP1.
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NON_TER 59 59
SEQUENCE 59 AA; 6407
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01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
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   31
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GPKGRNVVLEKKWGAPTITNDG
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Q9EUR7;
01-MAR-2001
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01-MAY-1997 (TrEMBLrel. 03, Createg)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
01-DEC-2001 (TREMBLREL 19, Last annotation update)
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Submitted (OCT-1999) to the EMBL/GenBank/DDBJ EMBL; AJ250537; CAC19355.1;
HSSP; P06139; 1AON.
                                                                InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00304; TCOMPLEXTCP1.
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Bacteria; Firmicutes; Actinobacteria;
Actinomycetales; Corynebacterineae; T
                      ATP-binding;
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NON_TER 61 61
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                                              PROSITE; PS00296; CHAPERONINS_CPN60; 1.
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 Submitted (JU - 1: FUNCTION:
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InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00304; TCOMPLEXTCP1.
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Bacteria; Firmicutes; Acti
                   of Hsp65
                      Nagabhushanam V
"Molecular and of Hsp65.";
                                                                   Actinomycetales;
NCBI_TaxID=1764;
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                                                                                        Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
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Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
1- FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFOLDING AND PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED UNDER STRE
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SUBUNIT: OLIGOMER OF 14 SUBUNITS
7 SUBUNITS (BY SIMILARITY).
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65K antigen mbaA -
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heat shock protein
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                                protein cpn60 -
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RESULT 2
A43509
65K antigen mbaA - Mycobacterium bovis
C;Species: Mycobacterium bovis
C;Date: 28-Oct-1992 #sequence_revision 28-Oct-1992 #text_change 26-Aug-1999
C;Accession: A43509
R;Thole, J.E.R.; Keulen, W.J.; Kolk, A.H.J.; Groothuis, D.G.; Berwald, L.G.; Tiesjema Infect. Immun. 55, 1466-1475, 1987
A;Title: Characterization, sequence determination, and immunogenicity of a 64-kilodal
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: DNA
A; Residues: 1-540 <SHI>
A; Residues: 1-540 <SHI>
A; Residues: 1-540 <SHI>
A; Coross-references: GB: M15467; NID: g149999; PIDN: AAA88232.1; PID: g150000
A; Cross-references: GB: M15467; NID: g149999; PIDN: AAA88232.1; PID: g150000
A; Coross-references: GB: M2 Ferkhill, J.; Garnier, T.; Churcher, C.; Hamlin, N.; Hamlin, N.; Hamlin, M.A.; Rogers, J.; Rutter, S.; Seeger, K.; Skelton, S.; Squares, S.
Nature 393, 537-544, 1998
A; Authors: Sqares, R.; Sulston, J.E.; Taylor, K.; Whitehead, S.; Barrell, B.G.
A; Title: Deciphering the biology of Mycobacterium tuberculosis from the comple A; Reference number: A70500; MUID: 98295987
A; Accession: A70830
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C; Superfamily:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   J. Bacteriol. 169, 1080-1088, 1987
A;Title: The 65-kilodalton antigen of Mycobacterium tuberculosis.
A;Reference number: A26950; MUID:87137260
A;Accession: A26950
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          C;Species: Mycobacterium tuberculosis C;Date: 02-Jun-1988 #sequence_revision C;Accession: A26950; A70830 R;Shinnick, T.M.
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A26950
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Pred. No. 5.2
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C;Superfamily: chaperonin groEL
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A;Molecule type: DNA
A;Molecule type: DNA
A;Residues: 1-540 <THO>
A;Cross-references: GB:M17705; NID:g149933; PIDN:AAA25358.1; PID:g149934
C;Superfamily: chaperonin groet
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R;Colston, X.Y.Z.; McConnell, X.Y.Z.; B submitted to the EMBL Data Library, Aug A;Description: Cloning and expression o A;Reference number: $40245 |
A;Accession: $40245
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J. Bacteriol. 173, 7382-7386, 1991
A;Title: Characterization of the groEL-like genes in Stre
A;Reference number: A41325; MUID:92041639
A;Accession: C41325
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A;Residues: 1-540 <MAZ>
A;Cross-references: GB:M76658; NID:g153293;
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Note: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 26-Aug-1999

C:Accession: C41325
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               chaperonin
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A; Residues: 1-541 <COL>
Alternate names:
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Best Local
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16; Conserv
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               Mycobacterium leprae
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Pred. No. 5.2
0; Mismatches
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Pred. No. 5.2e-07;
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A;Gene: groEL2
C;Superfamily: chaperonin groEL
C;Keywords: heat shock
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C;Date: 19-Mar-1998 #sequence_revision 17-Apr-1998
C;Accession: S70013; S70022
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C;Date: 02-Jun-1988 #sequence_revision 02-Jun-19
C;Accession: A25902
R;Mehra, V.; Sweetser, D.; Young, R.A.
Proc. Natl. Acad. Sci. U.S.A. 83, 7013-7017, 198
A;Title: Efficient mapping of protein antigenic
A;Reference number: A25902; MUID:86313701
A;Accession: A25902
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C;Superfamily: chaperonin groEL
C;Keywords: molecular chaperone
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                                                                                           A; Molecule type: protein A; Residues: 2-11 <FUW>
                                                                                                                                               A;Cross-references: GB:D86384; EMBL:D17354; NID:g1408522; PIDN:BAA13082.1; PID:g12280 A;Note: the source is designated as Synechococcus vulcanus
                                                                                                                                                                                      A; Molecule type: DNA
A; Residues: 1-543 <FUR>
                                                                                                                                                                                                                                                            R; Furuki, M.; Tanaka, N.; Hiyama, T.; Nakamoto, H. Biochim. Biophys. Acta 1294, 106-110, 1996 A; Title: Cloning, characterization and functional
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A; Residues: 1-588 <MEH>
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A; Residues: 1-541 <JAM>
A; Cross-references: EMB
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A;Accession: T44725
A;Status: preliminary; translated from GB/EMBL/DDBJ
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R;James, K.D.; Parkhill, J.; Barrell, B.G.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   C;Species: Mycobacterium leprae
C;Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change
                                                        C; Genetics:
                                                                           A; Note:
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NCBI_TaxID=1916;
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P48211 caulobacter	CH60_CAUCR	_	547	81.1	73	9
P25967 brucella ab	CH60_BRUAB	_	546	81.1	73	8
	CH60_RHOCA	<u> </u>	545	81.1	73	7
P37282 lactococcus	CH60_LACLA	_	542	81.1	73	6
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P26821 clostridium	CH60_CLOPE	Ľ	539	81.1	73	4
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EMBL; x95971; CAA65226.1; -.
HSSP; P45746; 1SRV.
InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00298; CHAPERONING.
PRINTS; PR00304; TCOMPLEXTCP1.
PROSITE; PS00304; TCOMPLEXTCP1.
                                                                                                                                                                                                                                                                                                                                                                                                                                This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          "Streptomyces lividans groEs, groEll and groEl2 genes.";
Microbiology 143:3563-3571(1997).

-I- FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFOLDING PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED UNDER CONDITIONS (BY SIMILARITY).

-I- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO STACKED 7 SUBUNITS: OBJ SIMILARITY).

-I- SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) FAMILY.
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16-OCT-2001 (Rel. 40, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
60 kDa chaperonin 2 (Protein Cpn60 2) (GroEL2 protein).
GROL2 OR GROEL2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              MEDLINE=98048481; PubMed=9387235; de Leon P., Marco S., Isiegas C.,
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Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                      0304; CHAPERONING
300296; CHAPERONING
ATP-binding; Multigene family.
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760F81793F4FED4D CRC64;
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RESULT 2
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Kapur V. Li LL. Hamrick M.R., Plikaytis B.B., Shinnic Teltunti A., Jacobs W.R. Jr., Banerjee A., Cole S., Yuen Clarridge J.E., Kreiswirth B.N., Musser J.M., "Rapid Mycobacterium species assignment and unambiguous identification of mutations associated with antimicrobi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekala F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Davies R., Devlin K., Feltwell T., Gentles S., Hamlin N., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence.";
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Ol-JAN-1988 (Rel. 06, Created)
Ol-JCT-1996 (Rel. 34, Last sequence update)
Ol-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
60 kDa chaperonin 2 (Protein Cpn60-2) (groEL protein 2) (65 kDa antigen) (Heat shock protein 65) (Cell wall protein A) (Antigen A).
antigen) (Heat shock protein 65) (Cell wall protein A) (Antigen A).
GROL2 OR GROEL2 OR GROEL-2 OR HSP65 OR RV0440 OR MT0456 OR MTV037.04.
                                                                                                                                                                                                                                                                                                                                                                                                          64-kilodalton protein of Mycobacterium bov
Escherichia coli K-12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SPECIES=M.bovis; STRAIN=BCG;
MEDLINE-87193155; PubMed=3553003;
Thole J.E.R., Keulen W.J., Kolk A.H.J.,
Tiesjema R.H., van Embden J.D.A.;
"Characterization, sequence determination"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SPECIES=M.tuberculosis; STRAIN=CDC 1551 / Oshkosh; Fleischmann R.D., Alland D., Elsen J.A., Carpenter L., White (Fleischmann R.D., Alland D., Elsen J.A., Carpenter L., Hickey Peterson J., DeBoy R., Dodson R., Gwinn M.L., Haft D., Salzbo Kolonay J.F., Welson W.C., Umayam L.A., Ermolaeva M.D., Salzbo Delcher A., Utterback T., Weidman J., Khouri H., Gill J., Miku
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPECIES=M.tuberculosis; STRAIN=H37RV; MEDLINE=98295987; PubMed=9634230;
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Bacteria; Firmicutes; Actinobacteria;
                                                                                                                                                 SPECIES=M.bovis, and M.tuberculosis; MEDLINE=95150784; PubMed=7848059;
                                                                                                                                                                                                                                                                                         SPECIES=M.bovis, Ros C., Belak K.;
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Submitted (APR-2001)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 lton antigen of Mycobacterium 169:1080-1088(1987).
                                                                                                                                                                                                                                                                                                                                                                                                        55:1466-1475(1987).
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                                                                           3 B.B., o..
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                                                                                          Shinnick .., Yuen K.
                                                                                                                                                                                                                                                                                                                      AND 12-14001;
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CH62_STRAL
ID CH62_STRAL
AC 000768;
DT 01-APR-1993
DT 01-JUN-1994
DT 16-OCT-2001
DE 60 kDa chape
GN GROL2 OR GRO
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Best Local S
Matches 16
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01-APR-1993 (Rel. :
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60 kDa chaperonin :
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-i- FUNCTION: PREVENTS MISFOLDING AND PROMOTES
-i- PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GE
CONDITIONS (BY SIMILARITY).

-i- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            InterPro; IPR001844; Chaperonins_cpn60
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      entities requires a license agreement (sor send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             use by non-profit institutions as long modified and this statement is not removed.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PROSITE; PS00296; CHAPERONINS_CPN60;
Chaperone; ATP-binding; Multigene far
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ÷
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   MISCELLANEOUS: PURIFIED 65 kDa ANTIGEN CAN ELICIT A STRONG DELAYED-TYPE HYPERSENSITIVITY REACTION IN EXPERIMANAL ANIMALS INFECTED WITH M.TUBERCULOSIS. THE MATOFEIN IS ONE OF THE MAJOR IMMUNOREACTIVE PROTEINS OF THE MYCOBACTERIA. THIS ANTIGEN CONTAINS EPITOPES THAT ARE COMMON TO VARIOUS SPECIES OF MYCOBACTERIA. SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ween the Swiss Institute of Bioinformatics European Bioinformatics Institute. There a
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MISCELLANEOUS: PURIFIED 65 kDa
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16; Conser
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Maximum DB seq length: 2000000000
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                              Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
                                                                                                          SPTREMBL_19:*
1: sp_archea:*
2: sp_bacteria:
3: sp_fungi:*
4: sp_human:*
5: sp_inverteb:
6: sp_mammal:*
7: sp_mhc:*
8: sp_organel1
9: sp_phage:*
10: sp_phage:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebra:
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14: sp_unclass:
15: sp_archeap:
16: sp_bacteria:
17: sp_archeap:
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Gapop 10.0 , Gapext 0.5
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sp_mhc:*
sp_organelle:*
sp_phage:*
sp_plant:*
sp_rodent:*
                                                                                                      sp_vertebrate:*
sp_unclassified:*
sp_rvirus:*
sp_bacteriap:*
sp_archeap:*
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sp_bacteria:*
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Q9rc20 bacillus sp	049314 arabidopsis	Q9x6y3 bacteroides	Q9ezv1 thermotoga	Q9amj8 anabaena sp	Q9k2u4 propionibac	Q9fds2 propionibac	•		Q9kxu5 streptomyce	Q9afa6 nocardia fa	Q9kgwl mycobacteri	Q9afa5 tsukamurell	P97086 tsukamurell	Q9eur7 streptomyce	Q9ewd1 streptomyce	Description

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"A cold-shock-like gene with pl
antibiotic biosynthesis.";
Submitted (OCT-1999) to the EME
EMBL; AJZ50537; CAC19355.1; -.
HSSP, P06139; laon.
                                                             PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00304; TCOMPLEXTCP1.
PROSITE; PS00296; CHAPERONINS_CPN60; 1.
                                                                                                                                                                                                                                                                      CONDITIONS (BY SIMILARITY).

1. SUBUNIT: OLICOMER OF 14 SUBUNITS COMPOSED OF TWO STACKED 7 SUBUNITS (BY SIMILARITY).

1. SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) FAMILY.

EMBL; U90204; AAB49990.1; -.

HSSP; P06139; 1GRL.
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Tsukamurella tyrosinosolvens.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
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01-MAY-1997 (TrEMBLrel. 03,
01-DEC-2001 (TrEMBLrel. 19,
60 KDA CHAPERONIN (PROTEIN C
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Pfam; PF00118; cpn60_TCP1; 1
PRINTS; PR00304; TCOMPLEXTCP1.
ATP-binding; Chaperone.
SEOUENCE, 539 AA; 56137
                                                                                                                                                                      InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
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Bacteria; Firmicutes; Actinobacteria;
Actinomycetales; Streptomycineae; Str
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       01-MAR-2001 (TrEMBLrel. 16, Cr. 01-MAR-2001 (TrEMBLrel. 19, La. 01-DEC-2001 (TrEMBLrel. 19, La. HEAT-SHOCK PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Submitted (FEB-1997) to the
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              protein 60.";
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Tsukamurella paurometabola.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Tsukamurellaceae; Tsukamurellaceae; Tsukamurella.
                                                     of Hsp65
                                                                                                                                                                                                                                                                                                                60 KDA CHAPERONIN (PROTEIN CPN60) (GROEL
                                                                                                                                                                                                                                                                                                                                          01-OCT-2000 (TrEMBLrel.
01-OCT-2000 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00304; TCOMPLEXTCP1.
PROSITE; PS00296; CHAPERONINS_CPN60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
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                             Submitted
                                                                                                             Nagabhushanam
                                                                                                                                          SEQUENCE
                                                                                                                                                                                                                             Actinomycetales;
                                                                                                                                                                                                                                                          Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                                                                                     Mycobacterium avium
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16; Conserv
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(TremBLrel. 17, Last sequence update)
(TremBLrel. 19, Last annotation update)
ERONIN (PROTEIN CPN60) (GROEL PROTEIN).
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AAY93329
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                                Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
Claim 2; Page 7; 58pp; English.
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Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease; inflammatory disorder; arthritis.
                                                                                                                                                                                                                                          Mycobacterium tuberculosis.
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(HADA-) HADASIT MEDICAL RES SERVICES
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                                                                                                                         Sequence
                                                                                                                                                                                                                            Claim 1; Page 7; 58pp; English
                                                                                                                                                                                                                                                                                                 WPI; 2000-376486/32.
                                                                                                                                                 antibodies,
                                                                                                                                                        The present sequence represents an epitope of the heat shock profole (Hsp60) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise
                                                                                                                                                                                                                                                                                                                     Naparstek Y,
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                                                                                                                                                                                                                                                                                                                                            (HADA-) HADASIT MEDICAL RES SERVICES
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease; inflammatory disorder; arthritis.
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Matches 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 provides M. vaccae polypeptides that comprise an immunogenic portion of a soluble M. vaccae antigen, or a variant, where the antigen induces an immune response in patients previously exposed to a mycobacterium. Such M. vaccae polypeptides can be used in methods for enhancing non-specific immune response. The methods and products can be used for the detection, treatment and prevention of infectious diseases caused by mycobacteria such as M. vaccae, M. avium or M. tuberculosis. The products also have the ability to induce cell proliferation and cytokine production (e.g. interferon-gamma and interleukin-12 production) in T cells, NK cells, B cells, or macrophages. They can be used for enhancing immune responses for use in vaccines or immunotherapy of infectious diseases and cancers.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Hiyama
Visser
                                                                                                                                                                                                               AAY14892 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Claim 48; Pages 117-118; 153pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium vaccae polypeptides - used to develop products for use in detection, therapy and prevention of mycobacteria infections or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    WPI; 1998-216926/19
N-PSDB; AAV34609.
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M. avium; M. tuberculosis; immune response enhancer; cell proliferation;
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29-AUG-1996;
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Mycobacterium vaccae protein; antigen; T cell activation; cytokine;

of M. vaccae antigen GV-27A.

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Amino acid sequence

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Minimum DB
Maximum DB
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Maximum Match 100%
Listing first 45 summaries
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Perfect score:
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4: /cgn2_6/ptodata/1,

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Copyright (c) 1993 - 2002 Compugen Ltd.
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US-09-095-855-114
US-09-324-542-114
US-09-324-542-114
US-09-368-834-20
US-08-461-722-3
US-08-366-251-4
US-08-366-251-4
US-08-366-251-4
US-08-467-822-3
US-08-467-822-31
US-08-997-080-160
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(without alignments)
41.218 Million cell updates/sec
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DATA: ER: ORMATIC ORMATIC BER: 3 NUMBER 1009-0563 9-0563 1D NO: ISTICS: ISTICS: ISTICS: Ingle ingle cotein	tion US , JAMES AUL L. JAMES RESS: 194 RESS: Offices Offices FORM: Skette compatit ER: OS	547 548 548 548 548 547 547 573 573 573 573 573
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007 11000.1007 ON:	OMPOUNDS FOR THE . Speckman ite 4185 ersion 2.0 80	US-08-336-251-2 PCT-US94-06362-2 US-08-467-822-32 US-09-472-971-3 US-08-466-248-32 US-08-466-248-32 US-08-466-248-32 US-08-466-248-35 US-08-466-248-35 US-08-466-248-35 US-08-461-722-1 US-08-362-51-1 PCT-US94-06362-1 US-08-361-787-1 PCT-US96-11373-1 PCT-US96-11373-1 US-08-467-822-30 US-08-467-822-30 US-08-432-697-30
	OF	Sequence 2, Appli Sequence 3, Appli Sequence 1, Appli Sequence 3, Appli
	CLASSIFICATION DATA: PRIOR APPLICATION DATA: APPLICATION NUMBER: FILING DATE: FILING DATE: FILING DATE: ATTORNEY/AGENT INFORMATION: NAME: Sleath, Janet REGISTRATION NUMBER: 37,0 REFERENCE/DOCKET NUMBER: TELECOMMUNICATION INFORMATIC TELEPHONE: 206-269-0563 TELEPAX: 206-269-0563 TELEPAX: 206-269-0563 INFORMATION FOR SEQ ID NO: 11 SEQUENCE CHARACTERISTICS: LENGTH: 215 amino acids TYPE: TINEAT MOLECULE TYPE: protein	SULT 1 O8-997-080-117 O8-997-080-117 Sequence 117, Application US/08997080 Patent No. 5968524 GENERAL INFORMATION: MATSON, JAMES D. APPLICANT: WATSON, JAMES D. APPLICATION LEILIOTT Avenue, Suite 4185 CITY: Seattle STATE: WA COUNTRY: USA ZIP: 98121 COMPUTER READABLE FORM: MEDIUM TYPE: Diskette COMPUTER: IBM Compatible OPERATION SYSTEM: DOS SOFTWARE: FEASTEN DOS SOFTWARE: FEASTEN DOS SOFTWARE: FEASTEN DOS SOFTWARE: FEASTEN DOS CURRENT APPLICATION DATA: APPLICATION NUMBER: US/08/997,080 FILING DATE: CLASSIFICATION: APPLICATION UNMBER: US/08/997,080 FILING DATE: EILING DATE: FILING DATE: FILIN

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Score 90; DB 2; Pred. No. 4.3e-08; Mismatches

Length 215; Indels

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31 GPKGRNVVLEKKWGAP 46

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US-09-095-855-117
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: Sequence 117, Application US/08997362

: Patent No. 5985287
                                                                                                     RESULT 3
                                           Patent No. 6160093
GENERAL INFORMATION:
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APPLICANT:
APPLICANT:
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APPLICATION NUMBER: US/08/907 och
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CORRESPONDENCE ADDRESS:
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APPLICANT: Hiyama, Jun
APPLICANT: Visser, Elizabeth
APPLICANT: Skinner, Margot
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PRIOR APPLICATION DATA:
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MEDIUM TYPE: Diskette
                                                                                                                                                                                                                                                                       MOLECULE TYPE: protein
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APPLICANT: Prestidge, Ross
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TOPOLOGY: lin
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2601 Elliott Avenue, Suite 4185
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                             Tan, Paul
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                Visser, Elizabeth
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US-09-324-542-117; Sequence 117, Application US/09324542; Patent No. 6328978
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Best Local Similarity
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                              NUMBER OF SEQ ID NOS: 194
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 117
                                                                               TITLE OF INVENTION: Methods and Compounds for the Treatment TITLE OF INVENTION: of Immunologically-Mediated Skin Disorders FILE REFERENCE: 11000.1007c1 CURRENT APPLICATION NUMBER: US/09/324,542 CURRENT FILING DATE: 1997-6-02 EARLIER APPLICATION NUMBER: US 08/997,080 EARLIER FILING DATE: 1997-12-23
                                                                                                                                                                                                       APPLICANT: Watson, James D. APPLICANT: Tan, Paul L.J. APPLICANT: Prestidge, Ross
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  FILING DATE: 29-AUG-1996
APPLICATION NUMBER: 08/873
FILING DATE: 12-JUN-1997
APPLICATION NUMBER: 08/997
FILING DATE: 23-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Sleath, Janet
TYPE: PRT
                  ENGTH:
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TELECOMMUNICATION INFORMATION: 206-269-0565
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APPLICATION NUMBER:
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NUMBER OF SEQUENCES:
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STRANDEDNESS: sir
TOPOLOGY: linear
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rived by analysis of the total score distribution.
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immunity against autoimmune
especially arthritis -
 Claim 1; Page 7; 58pp; English.
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Naparstek Y,
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                                                                                                                                                                                                                               Mycobacterium tuberculosis.
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Ulmansky
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sequence is used in vaccines for conferring une disease or inflammatory disorders,

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Best Local 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              LT 2
329
AAY93329 standard;
                                                                                                                                                                                                                                                                                                                                                               The present sequence represents an epitope of the heat shock protein 60 (Hsp60) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring immunity agginst autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise especially arthritis. The peptide may also be used to raise
                                                                                                                                                                                                                                                                                           Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2000-376486/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-NOV-1999;
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                                                                                                                                                                                                                                                                                                                                            antibodies, which are then used for passive immunisation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 2; Page 7; 58pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 05-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      18-MAY-2000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Epitope;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-SEP-2000 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAY93329;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (HADA-) HADASIT MEDICAL RES SERVICES &
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                                                                                                          GPKGRNVVLEKKWGAP 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GPKGRNVVLEKKWGAPTITNDG
                                                                               GPKGRNVVLEKKWGAP 16
                   16;
                                                                                                                                                                                                            Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            heat shock protein 60; Hsp60; vaccine; autoimmune disease; tory disorder; arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ۲,
                                                                                                                                                                                                                                                                                              16
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                                                                                                                                                                                 73.8%; llarity 100.0%; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                              A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Ulmansky
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              98US-0107213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99WO-IL00595
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     of an epitope of heat shock protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Kashi Y;
                                                                                                                                                                                 Score 90; DB; Pred. No. 3.9
                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16 AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 22
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 122; DB 21;
Pred. No. 2.7e-13;
Mismatches 0;
                                                                                                                                                                                                      DB 21; 1
3.9e-08;
                                                                                                                                                                                   0;
                                                                                                                                                                                                                                    Length 16;
                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         22;
                                                                                                                                                                                   0;
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                                                                                                                                                                                 Gaps
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gaps
                                                                                                                                                                                   0;
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                                                                                                                                                                                                                                                                                                                  AAY93330
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   This peptide is one of a library (see AAW43451-W4355) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant natigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid
                       Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease; inflammatory disorder; arthritis.
                                                                                                                                                                      04-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence
                                                                                                          Amino acid sequence of an epitope of heat shock protein
                                                                                                                                                                                                                           AAY93330;
                                                                                                                                                                                                                                                                                    AAY93330 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Elson CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Fig la; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Polypeptide(s) derived from microbial heat shock protein - for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1997-212851/19
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       pristane induced arthritis; PIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Heat shock protein; hsp58; autoimmune disease; hsp65; vaccine; rheumatoid arthritis; antigen; infectious disease; prophylacti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Mycobacteria sp. hsp68 derived peptide (group 1 #8).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 08-APR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (PEPT-) PEPTIDE THERAPEUTIC LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacteria
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16; Conser
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                                                                                                                                                                   (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95GB-0019737
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                                                                                                                                                                                                                                                                                    peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        100.0%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 87;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1.2e-07;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 18;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Length 16;
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RESULT 5
AAR94779
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DT 11-P
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Best Local S
Matches 16
                                         WPI;
                                                                                                                                                  04-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    The present sequence represents an epitope of the heat shock profole (18960) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
in diagnosis, prophylaxis and treatment of auto-immune rheumatoid arthritis.
                Polypeptide derived from bacterial heat shock protein 65
                                                                                                       27-SEP-1994;
                                                                                                                                                                        WO9610039-A1
                                                                                                                                                                                                                prophylaxis
                                                                                                                                                                                                                            Hsp; heat shock protein;
rheumatoid arthritis; au
                                                                                                                                                                                                                                                                                11-NOV-1996
                                                                                                                                                                                                                                                                                                      AAR94779;
                                                                                                                             27-SEP-1995;
                                                                                                                                                                                            Synthetic.
                                                                                                                                                                                                                                                         Peptide from library spanning
                                                                                                                                                                                                                                                                                                                          AAR94779 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Peptide having a defined sequence is immunity against autoimmune disease
                                                                                   (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 3; Page 7; 58pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       especially arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Naparstek Y,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  05-NOV-1998;
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                                          1996-200888/20
                                                                                                                                                                                                                                                                                                                                                                              VVLEKKWGAPTITNDG
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16; Conser
                                                            Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16
                                                                                                                                                                                                                                                                              (first entry)
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                                                                                                       94GB-0019553
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                                                                                                                                                                                                                                                                                                                         peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                  71.38;
                                                                                                                                                                                                                                                                                                                                                                               16
                                                                                                                                                                                                                            autoimmune
                                                                                                                                                                                                                                     Mycobacterium bovis; microbial; diagnosis;
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                                                                                                                                                                                                                                                                                                                                                                                                                         0:
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Pred. No.
                                                                                                                                                                                                                                                         whole of hsp65.
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                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                         disease;
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se or inflammatory disorders,
                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 21;
1.2e-07;
                                                                                                                                                                                                                         treatment; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                           Length 16
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       disease e.
                   for use
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RESULT 6
AAW43457
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Best Local S
Matches 15
                                                                  This peptide is one of a library (see AAW43451-W43556) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources
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                        may act as self antigens and thus have limited clinical use. hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vac
prophylaxis arthritis.
                                                                                                                                                                                                      Disclosure; Fig la;
                                                                                                                                                                                                                                  Polypeptide(s) derived from microbial heat shock protein for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                      27-SEP-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 pristane induced
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Mycobacteria
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Pred. No.
             autoimmune
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5.3e-07;
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               AAW43450 standard;
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in diagnosis, prophylaxis
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                                                                                                                                                                                     Local Similarity
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                                                                                                                   NVVLEKKWGAPTITND 21
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               peptide; 15 AA
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93.8%;
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s and treatment
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8.4e-07;
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5.3e-07
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      shock protein 65 - for of auto-immune disease
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                                                                                                                                                                                                Length 16;
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                                               prophylaxis.
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This peptide is one of a library (see AAW43451-W43556) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid
Hsp; heat shock protein; Mycobacterium rheumatoid arthritis; autoimmune diseas
                                                                                                                                                                                                                                                        AAR94781 standard; peptide; 15
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                                                                                Peptide from library spanning whole of hsp65
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rheumatoid arthritis; antigen;
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12; Conser
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                                                                                                                                           entry)
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autoimmune disease; treatment;
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Pred. No.
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                             bovis; microbial; diagnosis;
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Best Local S
Matches 11
Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
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                                                                                                                                                                                             WO200027870-A1
                                                                        Naparstek
                                                                                                (HADA-) HADASIT MEDICAL RES
                                                                                                                        05-NOV-1998;
                                                                                                                                                                      18-MAY-2000
                                                                                                                                                                                                                     Homo sapiens
                                                                                                                                                                                                                                                                                                       04-SEP-2000
                                                                                                                                                                                                                                                                                                                               AAY93331;
                                                                                                                                                                                                                                                                                                                                                     AAY93331 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease
                                                                                                                                                                                                                                                     Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease;
                                                                                                                                                                                                                                                                              Amino acid sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Example 1; Figure 1; 88pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   in diagnosis, prophylaxis rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Elson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          27-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-SEP-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  WO9610039-A1
                                                                                                                                                                                                                                          inflammatory disorder; arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                         11 KKWGAPTITNDG
                                                                                                                                                                                                                                                                                                                                                                                                                 2000-376486/32.
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                                                                                                                                                                                                                                                                                                      (first entry)
                                                                        Ulmansky
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                                                                                                                     98US-0107213
                                                                                                                                              99WO-IL00595
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                                                                                                                                                                                                                                                                                                                                                      peptide;
                                                                                                                                                                                                                                                                          of an epitope of heat shock protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             53.3%;
91.7%;
                                                                      ₽,
                                                                        Kashi
                                                                                                SERVICES
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Score 65;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       ВВ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Indels
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RESULT 11
AAR94778
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AC AAR94
AAR94
AC AAR94
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
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Best Local
                                                                                                                                                                  AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides contg. this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents an epitope of the heat shock protein 60 (Hsp60) of human origin. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Figure 1; 88pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Elson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            04-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           prophylaxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hsp; heat shock protein; Mycobacterium bovis;
rheumatoid arthritis; autoimmune disease; trea
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  27-SEP-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Peptide from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              11-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR94778
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AAR94778
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       7 VVLEKKWGAPTITNDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Similarity 50.0
8; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Thompson
                                                                                                                       16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                20 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  library spanning whole of hsp65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (first entry)
                                                                                                                       ΑĄ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                94GB-0019553
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         95WO-GB02295
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46.7%; 5-
100.0%; Pr
0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     treatment; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  microbial;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ų.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  diagnosis;
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Jease e.g.
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Query Match Best Local S Matches 11

l Similarity 11; Conserv

Conservative

Score 57; Pred. No.

DB 17; 0.012;

Length 16;

Indels

0

Gaps

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RESULT 13
AAB88272
ID AAB88
XX
AC AAB88
XX
AC AAB88
XX
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AAW43456
ID AAW43
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                                                                                                                                                                                                                                                                          Query Match
Best Local
                                                                                                                                                                                                                                                         Matches
                                                                                                                                                                                                                                                                                                                                                                                                         This peptide is one of a library (see AAW43451-W43556) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948 W14950) may be useful in the development of vaccines for the control of 
  17-MAY-2001
                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure; Fig la; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     WPI; 1997-212851/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Elson CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Heat shock protein; hsp58; autoimmune rheumatoid arthritis; antigen; infecti pristane induced arthritis; PIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW43456 standard;
                                        AAB88272;
                                                                             AAB88272
                                                                                                                                                                                                                                                                                                                                                                          arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Polypeptide(s) derived from microbial heat shock protein - useful for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-SEP-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacteria sp. hsp68 derived peptide (group 1 #6).
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                                                                                                                                                                                                                                                                                                                                                                                               prophylaxis
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                                                                                                                                                                                                                                                         Local Similarity
nes 11; Conserv
                                                                                                                                                                              6
                                                                                                                                                                                                                  1 GPKGRNVVLEK 11
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                                                                                                                                                                              GPKGRNVVLEK 16
                                                                             standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Thompson
                                                                                                                                                                                                                                                                                                                                     16 AA;
                                                                                                                                                                                                                                                                                                                                                                                               or treatment of an autoimmune disease such as rheumatoid
                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ф
  (first entry)
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                                                                           Peptide;
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                                                                                                                                                                                                                                                 46.7%; 57
100.0%; Pr
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                                                                                                                                                                                                                                                       Score 57; DB; Pred. No. 0.0
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infectious disease; pro
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         esp.
                                                                                                                                                                                                                                                                          DB 18;
0.012;
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                                                                                                                                                                                                                                                                                            Length 16
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prophylactic;
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                                                                                                                                                                                                                                                       Gaps
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AAB88269
ID AAT
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Best Local S
Matches
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                                                                                                                                                                                                                                                                                                                                                                                                    shock protein 65. This peptide epitope is useful for inducing a cytotoxic T-cell (CTL) response in vitro for an infectious microbe e.g. Mycobacteria e.g. Mycobacterium tuberculosis; Rickettsia; Chlamydia; Trypanosoma; Helicobacter; Leishmania; Trichomonas e.g. T.vaqinalis; Synechoccus e.g. S.vulcanis; Cowdria e.g. C.ruminatium; M.leprae; M.paratuberculosis; Brucella abortus; Leptospira interrogans; Legionella pneumophila; Coxiella burnetii; Staphylococcus aureus; Salmonella typhi; Yersinia enterocolitica; Neisseria meningitidis; N.gonorrhoeae; Haemophilus influenzae and Pseudomonas aeruginosa. This peptide epitope is useful for treating bacterial and parasitic infections such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      WPI;
                                                                                                                 17-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      The present sequence is a peptide epitope derived from Mycobacterial heat shock protein 65. This peptide epitope is useful for inducing a cytotoxic
Mycobacterium sp
                                        Heat shock protein-65; hsp-65; epitope; antibacterial; tuberculostatic; immune response inducer; vaccine; gene therapy; bacterial infection;
                                                                                    Hsp-65
                                                                                                                                             AAB88269;
                                                                                                                                                                        AAB88269 standard;
                                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Disclosure;
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                                                                                                                                                                                                                                                                                                                                                                                           tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              infections,
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                                                                                  peptide epitope #43
                                                                                                                                                                                                                                                                                                       similarity
9; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              such as tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Page 55; 117pp; English.
                                                                                                                                                                                                                                                                                                        Conservative
                                                                                                               (first
                                                                                                                                                                                                                                                                                                                                                               AA;
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                                                                                                                                                                        Peptide;
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                       WPI; 1989-248896/34
                                                                             Bixler G,
                                                                                                                                   (PRAX ) PRAXIS BIOLOGICS INC.
                                                                                                                                                                                            01-FEB-1988;
                                                                                                                                                                                                                                                  31-JAN-1989;
                                                                                                                                                                                                                                                                                                           10-AUG-1989
                                                                                                                                                                                                                                                                                                                                                                    WO8906974-A
                                                                                                                                                                                                                                                                                                                                                                                                                       Tetaus toxin fragments; immunogenic conjugates; autoimmune disease; cancer; meningitis; T-cell epitope; toxins.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Amino acids 1021-1040 of tetanus toxin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                30-AUG-2000; 2000WO-IB01326
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(CHAR/) CHARO J M.
(OTEN/) OTENHOFF T H M.
(GELU/) GELUK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-MAR-2001.
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                                                                          Pillai S,
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Matches 9
                                                                                                                                                                                Amino acids 1021-1040 of tetanus toxin contg. T-cell epitope, for use, in conjugates (joined to an antigen or B-cell epitope) as vaccines. See AAP91043, and AAP90181 for
                                                                                                                                                                                                                                  Claim 21;
                                                                                                                                                                                                                                                         New isolated and synthetic T-cell bacterial epitope(s) - used as carriers for antigens, producing immunogenic conjugates for vaccines.
                                                                                                                                               Sequence
                                                                                                                                                                       diphtheria
                                               4 NAYLANKWVFITITND
                                                                      6 NVVLEKKWGAPTITND
                                                                                             Similarity 56.3
9; Conservative
                                                                                                                                                                                                                                page 86; 103pp;
                                                                                                                                             20 AA;
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       number of hits satisfying chosen parameters:
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ALIGNMENTS

melanotropin beta - smaller spotted catshark C;Species: Scyliorhinus canicula (smaller spotted: 13-Jul-1981 #sequence_revision 13-Jul-1981 #sequence_revisi

(smaller spotted catshark, smaller spotted rision 13-Jul-1981 #text_change 23-Aug-1996

dogfish)

of.

the spotted dogfish (Scyliorhinus canic

RESULT MTDFBC

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C;Accession: A01470
R;Love, R.M.; Pickering, B.T.
Gen. Comp. Endocrinol. 24, 398-
A;Title: A beta-MSH in the pitu
A;Reference number: A01470; MU
A;Accession: A01470
RESULT
S03986
                                                                                                                                                                                    A; Molecule type: protein
A; Residues: 1-17 < RAH>
C; Keywords: acyltransferase;
                                                                                                                                                                                                                                 dihydrolipoamide S-acetyltransferase (EC 2.3.1.12) - bovine (fragment)
C;Species: Bos prinigenius taurus (cattle)
C;Date: 30-Apr-1991 #sequence_revision 30-Apr-1991 #text_change 05-May-2000
C;Accession: A37823
R;Rahmatullah, M.; Radke, G.A.; Andrews, P.C.; Roche, T.E.
J. Biol. Chem. 265, 14512-14517, 1990
A;Title: Changes in the core of the mammalian-pyruvate dehydrogenase complex upon A;Reference number: A37823; MUID:90354445
A;Accession: A37823
A;Status: preliminary
A;Accession: A37823
A;Status: preliminary
A;Accession: A37823
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A;Residues: 1-18 <LOV>
C;Superfamily: corticotropin-lipotropin
C;Keywords: hormone
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                                                                                                                     23.8%; 5cc
100.0%; Pr
'" 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         24.6%;
80.0%;
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e pituitary gland
D; MUID:75113445
                                                                                                                                                                                        coenzyme
                                                                                                                                        Score 29; Pred. No.
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3.9e+02;
0;
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agglutinin beta-1 chain - Osage orange
C;Species: Maclura pomifera (Osage orange)
C;Date: 28-Feb-1990 #sequence_revision 28-Feb-1990 #text_change 01-;
C;Accession: S03986; S03988
R;Young, N.M.; Johnston, R.A.Z.; Szabo, A.G.; Watson, D.C.
Arch. Biochem. Biophys. 270, 596-603, 1989
A;Title: Homology of the D-galactose-specific lectins from Artocarple, Reference number: S03983; MUID:89206218
A;Accession: S03986
A;Molecule type: protein
A;Residues: 1-21 < YOUD
A;Note: beta-1 form
A;Accession: S03988
A;Accession: S03988
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   plantaricin A - Lactobacillus plantarum
C;Species: Lactobacillus plantarum
C;Date: 14-May-1993 #sequence_revision 14-May-1993 #text_change 12-Sep-1997
C;Accession: A45913
R;Nissen-Meyer, J.; Granly-Larsen, A.; Sletten, K.; Daeschel, M.; Nes, I.F.
submitted to the Protein Sequence Database, April 1993
A;Accession: A45913
A;Accession: A45913
A;Status: preliminary
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        RESULT 4
A45913
                                                                                                                                                                                                                                                  melanotropin beta - horse
C;Species: Equus caballus (domestic horse)
C;Date: 13-Jul-1981 #sequence_revision 13-Jul-1981
C;Accession: A01467
R;Dixon, J.S.; L1, C.H.
Gen. Comp. Endoorinol. 1, 161-169, 1961
Gen. Comp. Endoorinol. 1, 161-169, 1961
A;Title: The isolation and structure of beta-melano
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Molecule type: protein
A; Residues: 1-22 <NIS>
C; Keywords: antibiotic;
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                                                                                                                                                    C; Keywords: hormone
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A; Accession: A01467
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Best Local S
Matches 5
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,.3e+02;
7;
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multicatalytic endopeptidase complex (EC 3.4.99.46) subunit 13 - bovine (fragment) C;Species: Bos primigenius taurus (cattle) C;Date: 04-Mar-1993 #sequence_revision 18-Nov-1994 #text_change 26-May-2000 C;Accession: A42762 R;Dick, L.R.; Moomaw, C.R.; Pramanik, B.C.; DeMartino, G.N.; Slaughter, C.A. Biochemistry 31, 7347-7355, 1992 B;Ochemistry 31, 7347-7355, 1992 A;Title: Identification and localization of a cysteinyl residue critical for the t. A;Reference number: A42762; MUID:92378961
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    FEBS Lett. 382, 261-264, 1704
A;Title: Induction of proteins in response
A:Reference number: S62893; MUID:96184500
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               cold-inducible protein, 70K - rainbow trout (fragment)
C;Species: Oncorhynchus mykiss (rainbow trout)
C;Date: 19-Mar-1997 #sequence_revision 24-Jul-1997 #text_change
C;Accession: S62893
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A; Note: sequence extracted fro C; Superfamily: multicatalytic C; Keywords: hydrolase
               A; Molecule type: DNA
A; Residues: 1-22 <KUR>
A; Cross-references: GB
                                                                                                            ster, E.W.
A;Title: The Genome
                                                                                                                                                                                                                                              hypothetical protein Atu2202 [imported] - Agrobacterium tumefaciens (strain C;Species: Agrobacterium tumefaciens C;Date: 11-Jan-2002 #sequence_revision 11-Jan-2002 #text_change 11-Jan-2002
                                                                                A; Reference number: A; Accession: AI2846
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A;Molecule type: proto
A;Residues: 1-21 <YAM
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R; Yamashita, M.; Ojima, PFEBS Lett. 382, 261-264,
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A;Status: preliminary
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                                                                                                of the Natural Genetic Engineer AB2577; PMID:11743193
                 GB:AE008688;
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C58
               PIDN: AAL43191.1;
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122
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     SwissProt_40:*
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MORN_HUMAN
VR90_BORPE
SCIB_BPT5
LIGA_TRAVE
UN02_PINPS
MLB_SQUAC
AGI_EUPCH
PGK_BACCE
PRACE
POR_BACCE
PRACE
POR_BACCE
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P18675
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P81829
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P01206 scyliorhinu
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y squalus aca euphorbia c bacillus ce clostridium locusta mig bothrops ja achatina fu caenorhabdi
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artocarpus
spinacia ol
maclura pom
homo sapien
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luca pugilat
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5 maclura pom
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2 equus cabal
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trametes ve
pinus pinas
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ALIGNMENTS

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RESULT 1
CHIO_CLOPA STANDARD; PRT; 19 AA.
ID CHIO_CLOPA STANDARD; PRT; 19 AA.
AC P81338;
DT 15-JUL-1998 (Rel. 36, Created)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Last sequence update)
DT 15-JUL-1998 (Rel. 36, Created)
DT 10 kDa chaperonin (Protein Cpn10) (groES protein) (CP GN GROES.

OC GROS OR GROES.
OS Clostridium pasteurianum.
OC Hacteria; Firmicutes; Bacillus/Clostridium group; Clo Bacteria; Firmicutes; Bacillus/Clostridium group; Clo Retricial Color NCBI_TaxID=1501;
RN [1]
RN [1]
RN [1]
RN [1]
RN [1]
RN [1]
RN SEQUENCE.
RC STRAIN=W5;
RX MEDLINE=98291870; PubMed=9629918;
RX STRAIN=W5;
RX STRAIN=W5;
RX STRAIN=W5;
RX STRAIN=W5;
RX STRAIN=W5;
RX STRAIN=W5;
RX MEDLINE=98291870; PubMed=9629918;
RX SEQUENCE analysis of proteins from Clostridium pasteu Electrophoresis 19:802-8066(1998);
RX STRAIN=W5;
RX STRAIN=W5;
CC -1- FUNCTION: BINDS TO CPM60 IN THE PRESENCE OF MG-AT THE ATPASE ACTIVITY OF THE LATTER (BY SIMILARITY).
CC -1- SUBUNIT: HEPTAMER OF 7 SUBUNITS ARRANGED IN A RIN (BY SIMILARITY).
CC -1- SUBUNIT: HEPTAMER OF 7 SUBUNITS ARRANGED IN A RIN (BY SIMILARITY).
CC -1- SUBUNIT: HEPTAMER OF 7 SUBUNITS ARRANGED IN A RIN (BY SIMILARITY).
CR SIMILARITY: BELONGS TO THE GROES CHAPERONIN FAMIL DR HONG-TER (BY SIMILARITY).
CR Chaperone.
19 19 NON_TER 19 AA; 2026 MW; 7D6B9BD414E60A60 CRC64;
SQ SEQUENCE 19 AA; 2026 MW; 7D6B9BD414E60A60 CRC64;
                                                                                                                                                                                                                                                                                                                                                                      RESULT 2
MLB_SCYCA
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Best Local S
Matches 6
MLB_SCYCA STANDARD; PRT; 18
p01206;
p01206;
21-JUL-1986 (Rel. 01, Created)
21-JUL-1986 (Rel. 01, Last sequence upda
16-OCT-2001 (Rel. 40, Last annotation up
Melanotropin beta (Beta-MSH).
Scyliorhinus canicula (Spotted dogfish)
Eukaryota; Metazoa; Chordata; Craniata;
Elasmobranchii; Galeomorphii; Galeoidea;
Scyliorhinidae; Scyliorhinus.
NCBI_TaxID=7830;
[1]
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-I - SIMILARITY: BELONGS TO THE GROES CHAPERONIN FAMILY.
InterPro; IPR001476; Cpn10.
Pfam; PF00166; Cpn10; 1.
PROSITE; PS00681; CHAPERONINS_CPN10; PARTIAL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Flengsrud R., Skjeldal L.;
"Two-dimensional gel electrophoresis separation and N-terminal sequence analysis of proteins from Clostridium pasteurianum W5. Electrophoresis 19:802-806(1998).
-i- FUNCTION: BINDS TO CPN60 IN THE PRESENCE OF MG-ATP AND SUPP THE ATPASE ACTIVITY OF THE LATTER (BY SIMILARITY).
-i- SUBUNIT: HEPTAMER OF 7 SUBUNITS ARRANGED IN A RING
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                                                                                                 (Spotted dogfish)
hordata; Craniata;
morphii; Galeoidea;
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Pred. No. 1.7e
2; Mismatches
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1.7e+02;
                                                                                                 (Spotted catshark).
Vertebrata; Chondrichthyes;
; Carcharhiniformes;
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RESULT 4
LEC1_MACPO
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Matches 4
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                                                                                                                                                                                                                                                                                                        Lectin.
SEQUENCE
                                                                     LEC1_MACPO STANDARD; PRT; P18675; 01-NOV-1990 (Rel. 16, Created) 01-NOV-1990 (Rel. 16, Last sequence up 01-AUG-1991 (Rel. 19, Last annotation Agglutinin beta-1 chain (MPA).
Maclura pomifera (Osage orange).

Bukaryota; Viridiplantae; Streptophyta; Embryophyta; Tracheophyta;

Spermatophyta; Magnoliophyta; eudicotyledons; core eudicots; Rosid
eurosids I; Rosales; Moraceae; Maclura.

NCBI_TaxID=3496;
                                                                                                                                                                                                                                                                                                                                            polypeptide subunit.";
Arch. Biochem. Biophys. 270:596-603(1989).
-i- FUNCTION: D-GALACTOSE-SPECIFIC LECTIN,
STRUCTURE GAL-BETA1-3-GALNAC.
-i- SUBUNIT: FORMED OF FOUR ALPHA CHAINS AN
-i- SIMILARITY: TO THE OTHER AGGLUTININ BET
PIR: S03988; S03988.
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"A beta-MSH in the pituitary gland of the spotted d
(Scyliorhinus canicula): isolation and structure.";
Gen. Comp. Endocrinol. 24:398-404(1974).

-i- SIMILARITY: BELONGS TO THE POMC FAMILY.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         SEQUENCE.
MEDLINE=75113445; PubMed=4452470;
                                                                                                                                                                                                                                                                                                                                                                                                                                MEDLINE-89206218; PubMed-2705782;
Young N.M., Johnston R.A.Z., Szabo A.G., Watson D.C.
"Homology of the D-galactose-specific lectins from A
integrifolia and Maclura pomifera and the role of an
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    SEQUENCE
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Pred. No.
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                                 Rosidae;
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Equus

caballus

(Horse)

21-JUL-1986 (Rel. 01, Created 21-JUL-1986 (Rel. 01, Last se 16-OCT-2001 (Rel. 40, Last an Melanotropin beta (Beta-MSH).

01, Created)
01, Last sequence update)
40, Last annotation updat

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MLB_HORSE
ID MLB_H
AC P0120
DT 21-JU
DT 16-OC
DE Melan
OS Equus
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Best Local Similarity
Matches 5; Conser
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Best Local
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01-JUN-1994 (Rel. 29,
30-MAY-2000 (Rel. 39,
Flagellin (Fragment).
                       MLB_HORSE
P01202;
21-JUL-1986
21-JUL-1986
16-OCT-2001
                                                                                                                                                                                                                                                                                 MEDLINE-94041612; PubMed-8225570;
Scherer D.C., Deburon-Connors I., Minnick M.F.;
Scherer D.C., Deburon-Connors I., Minnick M.F.;
"Characterization of Bartonella bacilliformis flagella and effect antiflagellin antibodies on invasion of human erythrocytes.";
Infect. Immun. 61:4962-4971(1993).
-i- FUNCTION: FLAGELLIN IS THE SUBBUNIT PROTEIN WHICH POLYMERIZES
FORM THE FILAMENTS OF BACTERIAL FLAGELLA. FLAGELLA ARE AN
                                                                                                                                                                                                                                       IMPORTANT COMPONENT IN THE INVASIVENESS OF B.BACILLIFORMIS. -!- SIMILARITY: BELONGS TO THE BACTERIAL FLAGELLIN FAMILY. Flagella. 17 17
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Bacteria; Proteobacteria; a
Bartonellaceae; Bartonella.
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P35634;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 young N.M., Johnston R.A.Z., Szabo A.G., Watson D.C.; "Homology of the D-galactose-specific lectins from Artocarpus integrifolia and Maclura pomifera and the role of an unusual spolypeptide subunit.";
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SEQUENCE.
SEQUENCE.
TISSUB-Seed;
TELENCE.
MEDLINE-89206218; PubMed-2705782;
                                                                                                                                                                                                                            SEQUENCE
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HSSP; P18676; 1JOT.
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NCBI_TaxID=774;
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                                                                       STANDARD;
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1746 MW;
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SE-SPECIFIC LECTIN, BINDS
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Pred. No.
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Sp_archea:*

Sp_bacteria

Sp_fung1:*

Sp_fung1:*

Sp_funde:*

Sp_funde:*

Sp_invert

Sp_mamma

Sp_mamma

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10: Sp_p

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Match
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Q9TRD8;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-JUN-2000 (TrEMBLrel. 14, Last annotation update)
CHAPERONIN (FRACKENT).
Oryctolagus cuniculus (Rabbit).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostom1;
Mammalia; Eutheria; Lagomorpha; Leporidae; Oryctolagus.
Q9UCK9 PRELIMINARY; PRT; 16 AA.
Q9UCK9;
Q1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-JUN-2001 (TrEMBLrel. 17, Last annotation update)
SERUM AMYLOID A ISOTYPE 2 ALPHA PROTEIN (FRAGMENT).
                                                                                                                                                                                                                                                                                            Vandekerckhove J., Ampé C.;
"Eukaryotic cytosolic chaperonin contains t-complex polypeptide 1
seven related subunits.";
Proc. Natl. Acad. Sci. U.S.A. 90:11975-11979(1993).
SEQUENCE 18 AA; 1884 MW; B608F6EBB5A8AZA6 CRC64;
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Q9PRQ1;
01-MAY-2000 (TrEMBLrel. 13, Created)
01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
01-MAY-2000 (TrEMBLrel. 13, Last annotation update)
70 KDA COLD ACCLIMATION-RELATED PROTEIN (FRAGMENT).
Oncorrhynchus mykiss (Rainbow trout) (Salmo gairdneri).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Eu
Actinopterygît; Neopterygît; Teleostei; Euteleostei;
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Q9UPK4;
01-MAY-2000;
01-MAY-2000;
01-MAY-2000;
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Burkhart-Schultz K., Gordon L., Kyle A., Ramirez M., Stilwagen S.,
Phan H., Velasco N., Do L., Regala W., Terry A., Garnes J.,
Phan L., Poundstone P., Christensen M., Georgescu A., Avila J.
Danganan L., Poundstone P., Christensen M., Georgescu A., Avila J.
Liu S., Attix C., Andreise T., Trankheim M., Amico-Keller G.,
Coefield J., Duarte S., Lucas S., Burce R., Thomas P., Quan G.,
Kronmiller B., Arellano A., Montgomery M., Ow D., Nolan M., Trong
Kobayashi A., Olsen A.S., Carrano A.V.;
Sequence analysis of a 3.5 Mb contig in human 19p13.3 containing
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SEQUENCE
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"Identification of two novel amyloid A protein
an individual patient of AA-amyloidosis";
Biochim. Biophys. Acta 1180:195-200(1992).
InterPro; IPRO00096; Serum_amyloid_A.
Pfam; PF00277; SAA, proteins; 1.
SEQUENCE 16 AA; 1612 MW; 1CAB4F077C9C8CC1 C
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           serine protease gene cluster.";
Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases
EMBL; AC005321; AAC27374.1; -.
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Mammalia; Eutheria;
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                                                         Petromyzon marinus (selukaryota; Metazoa; Cetromyzontiformes; NCBI_TaxID=7757;
                                                                                           01-MAY-2000 (TremBLrel.
01-MAY-2000 (TremBLrel.
CORTICOTROPIN, ACTH.
                                                                                                                                                                                                                                                                                MEDLINE-21116988; PubMed-11179344; Kahler C.M., Blum E., Miller Y.K., Ryan "exl, an exchangeable genetic island in Infect. Immun. 69:1887-1698(2001).
EMBL; AF319527; AAK08019 1; -.
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01-MAY-2000
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01-JUN-2001
        Kawauchi H.;
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FEBS Lett.
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"Induction of proteins in response
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glands
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0593; TonB_boxC;
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        and characterization
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21 AA; 2129 MW;
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                          Amemiya
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                         PubMed-8537171;
niya Y., Nozaki
                                                                                                                                                                                                                                                  2584 MW;
                                                                                    (Sea lamprey).
                                                                    Petromyzontidae;
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46.7%;
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                          Sower S.A.,
                                                                    Petromyzon
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2.4e+03;
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Neisseria meningitidis."
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Maximum Match 100%
Listing first 45 summaries
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US-08-432-697-11
US-08-432-697-11
US-08-204-487-4
US-07-755-161A-1
US-07-755-161A-1
US-07-891-174-1
US-07-891-174-2
US-08-256-771-22
US-08-256-771-23
US-08-381-984-23
US-08-381-984-23
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US-08-381-985-23
US-08-381-985-23
US-09-113-077C-68
US-09-213-077C-68
US-09-113-077C-68
US-09-213-078C-59-59
US-08-687-990-67
US-08-584-043A-80
US-08-584-043A-80
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Compugen Ltd.
sequence
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Sequence 4, A
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4, Appl
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US-08-467-822-11
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Patent No. 5843460
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APPLICANT: Ferrero,
APPLICANT: Thiberge,
TITLE OF INVENTION: I
TITLE OF INVENTION: H
TITLE OF INVENTION: H
TITLE OF INVENTION: P
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Ferrero, Richard L.
Thiberge, Jean-Michel
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POLYPEPTIDES

IMMUNOGENIC COMPOSITIONS AGAINST
HELICOBACTER INFECTION, POLYPEPTIDES FOR USE IN THE
COMPOSITIONS, AND NUCLEIC ACID SEQUENCES ENCODING SAID

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ALIGNMENTS

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COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC COMPATIBLE
COMPUTER: IBM PC COMPATIBLE
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PatentIn Release #1.0, Ve
CURRENT APPLICATION DATA:
APPLICATION UMBER: US/08/467,822
FILING DATE: 06-JUN-1995
CILASSIFICATION DATA:
APPLICATION NUMBER: US 08/447,177
FILING DATE: 19-MAY-1995
                  TELEFAX: (202) 408-440 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                            CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION UMBER: US 08/432
FILING DATE: 02-MAY-1995
CLASSIFICATION: 435
ATTORNEY AGENT INFORMATION:
NAME: MEYERS, KENNET J. 46
REGISTRATION NUMBER: 25,146
REFERENCE/DOCKET NUMBER: 0349
TELECOMMUNICATION INFORMATION:
TELECHENEX: (202) 408-4000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
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ZIP: 20005-3315
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CITY: Washington
STATE: D.C.
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1300 I Street, N.W.
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amino acids
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US-08-466-248-11 ; Sequence 11, Application US/08466248
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Best Local Similarity
""" 6; Conserv
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; TOPOLOGY: linear
; MOLECULE TYPE: peptide
US-08-467-822-11
                                                                                                                                                                                         US-08-432-697-11
                              RESULT 3
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                                                                                                                                 Matches
                                                                                                                                                            Query Match
                                                                                                                                                                                                                                                                                                                             APPLICATION NUMBER: US/08/432,697
FILING DATE: 02-MAY-1995
CLASSIFICATION: 424
ATTORNEY/AGENT INFORMATION:
NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 25,146
REFERENCE/DOCKET NUMBER: 03495.0137
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                        TELEFAX: (202) 408-441 INFORMATION FOR SEQ ID NO:
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TITLE OF INVENTION:
TITLE OF INVENTION:
TITLE OF INVENTION:
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APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compati
                                                                                                                                                                                                     TOPOLOGY: 1: MOLECULE TYPE:
                                                                                                                                                                                                                                                            SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                              CURRENT APPLICATION DATA:
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CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                          COMPUTER: IBM PC compatible OPERATING SYSTEM: PC-DOS/MS-DOS SOFTWARE: PatentIn Release #1.0,
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nes 6; Conserv
                                                                                                                                                                                                                              TYPE: amino acid
STRANDEDNESS: sir
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VERTION: IMMUNOGENIC COMPOSITIONS AGAINST
VERTION: HELICOBACTER INFECTION, POLYPEPTIDES FOR USE IN THE
VERTION: COMPOSITIONS, AND NUCLEIC ACID SEQUENCES ENCODING SAID
VERTION: POLYPEPTIDES
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Ferrero, Richard L.
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85.7%;
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                                                                                                                              Score 36;
Pred. No.
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Pred. No.
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                                                                                                                          DB 4; Lc., 1.7e+05; 0;
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1.7e+05;
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GENERAL INFORMATION:
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Best Local
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ZIP: 2005-331J
COMPUTER READABLE FORM:
COMPUTER: Floppy disk
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
COMPUTER: PC-DOS/MS-DOS
COMPUTER: PC-DOS/MS-DOS
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COMPUTER: PC-DOS/MS-DOS
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PRIOR APPLICATION DATA:
APPLICATION UNMBER: US 08/432,697
FILING DATE: 02-MAY-1995
CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Meyers Kenneth J.
REGISTRATION NUMBER: 03495.0137-02000
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Patent No. 6258359
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                TELEFAX: (202) 408-440
INFORMATION FOR SEQ ID NO:
SEQUENCE CHARACTERISTICS:
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APPLICANT: Thiberge,
TITLE OF INVENTION:
NUMBER OF SEQUENCES:
      APPLICANT:
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CURRENT APPLICATION DATA:
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APPLICATION NUMBER: US 08/447,177
FILING DATE: 19-MAY-1995
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2 GPRGRNV 8
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CITY: Washington
STATE: D.C.
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TOPOLOGY: lin
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Sauerbaum, Sebas...
Feirero, Richard L.
Feirer
MOSUCHI, WATARU
TANAKA, SHIGEAKI
DOSAKO, SHUN'ICHI
KAWASAKI, YOSHIHIRO
UCHIDA, TOSHIAKI
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NAKASHIMA, HIDEKI
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Perfect score:
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: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1980.DAT:*

2: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1981.DAT:*

3: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*

4: /SIDS1/gcgdata/geneseq/geneseqp-embl/AA1983.DAT:*

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(without alignments)
71.087 Million cell updates/sec
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                                                       Mycobacteria sp. h
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AAM46151	AAM44111	AAW69100	AAB39000	AAR95294	AAR58521	AAB68351	AAW38770	AAM00664	AAM98555	AAY57010	AAY57009	AAW38002	AAU02332	AAW56753	AAG94842	AAW75543	AAM00717	AAM97155	AAW19794	AAR86962	AAB45892	AAW37382	AAW25443	AAW24451	AAW38766	AAB32456	AAB90858	AAG64099	AAB35931	AAB01586	AAB10751	S	AAR94781
	Hll binding site c	Neuronal NOS bindi	Human secreted pep	Heavy chain CDR3 o	Heavy chain CDR3 f	Human NADH oxidase	Delivery peptide u		Human peptide #183	Peptide MS-37, wit	Peptide MS-36, wit	www domain binding	HLA binding TADG-1	 A. tumefaciens ant 	Human complementar	Collagen II specif	Human protein frag	Human peptide #430	Compressing peptid	r localisat	Human tumor-associ	÷	Grb2 N-terminal SH	Nucleic acid (NA)	Delivery peptide u	Human secreted pro	sti	Cytochrome bl2 N-t		Proteoglycan bindi	۰	teria	Peptide from libra

ALIGNMENTS

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RESULT 1
AAY93329
Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease; inflammatory disorder; arthritis.
                                                                                                                                                                                                                                                   AAY93329 standard; peptide;
                                               WPI; 2000-376486/32.
                                                                                              05-NOV-1998;
                                                                                                             04-NOV-1999;
                                                                                                                                            WO200027870-A1.
                                                                                                                                                            Mycobacterium tuberculosis.
                                                                                                                                                                                                   Amino acid sequence of an epitope of heat shock
                                                                                                                                                                                                                   04-SEP-2000 (first entry)
                                                                                                                                                                                                                                    AAY93329;
                                                             Naparstek Y, Ulmansky R,
                                                                                                                             18-MAY-2000.
                                                                             (HADA-) HADASIT MEDICAL RES SERVICES & DEV
                                                                                             98US-0107213
                                                                                                              99WO-IL00595
                                                               Kashi Y;
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Claim 2; Page 7; 58pp; English.

Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -

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                                                                                                                    AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides contg. this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                The present sequence represents an epitope of the heat shock protein 60 (Hsp60) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
                                                                                                                                                                                                                                                      Example 1; Figure 1; 88pp; English
                                                                                                                                                                                                                                                                                            Polypeptide derived from bacterial heat shock protein 65 - for use in diagnosis, prophylaxis and treatment of auto-immune disease e.g
                                                                                                                                                                                                                                                                                                                                                                                                                                                                     04-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rheumatoid arthritis; autoimmune disease; treatment; vaccine;
prophylaxis.
                                                                                            Sequence
                                                                                                                                                                                                                                                                                 in diagnosis, prophylaxis rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                    WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                                                                                                                                                  27-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                           27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WO9610039-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hsp; heat shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Peptide from library spanning whole
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 11-NOV-1996
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                                                                                                                                                                                                                                                                                                                                                                                         (PEPT-) PEPTIDE THERAPEUTICS LTD
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les 16; Conser
1 GPÆGRNVVLEKKWGA
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                                         l Similarity
15; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   standard;
                                                                                            15
                                                                                                                                                                                                                                                                                                                                                               Thompson SJ
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ilarity 100.0%;
Conservative
                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (first entry)
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                                                                                            AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             protein; Mycobacterium
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   peptide;
                                                    100.0%;
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                                        Score 83; DB; Pred. No. 1.2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             bovis; microbial; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hsp65.
                                                                   DB 17;
                                                    1.2e-07;
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                                                                  Length 15;
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                                         Indels
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                                        Gaps
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AAR94780
ID AARS
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AAW43457
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                                                                                                     RESULT
                                                                                                                                                                                               Query Match
Best Local Similarity
Matches 15; Conserv
                                                                                                                                                                                                                                                                                      This peptide is one of a library (see AAW43451-W4356) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, our fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid
                          11-NOV-1996
                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Fig la;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Elson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   03-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           pristane induced arthritis; PIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         08-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAW43457;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAW43457 standard; peptide;
                                                  AAR94780;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 1997-212851/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            W09711966-A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacteria sp.
                                                                           AAR94780 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Polypeptide(s)
for treatment 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (PEPT-) PEPTIDE THERAPEUTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         26-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacteria sp.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Heat shock protein; hsp58; autoimmune disease; hsp65; vaccine; rheumatoid arthritis; antigen; infectious disease; prophylacti
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                                                                                                                                             GPKGRNVVLEKKWGA 15
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                                                                                                                                                                                                Conservative
                        (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        ) derived from microbial heat shock protein - of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                     AA;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         96WO-GB02382
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              hsp68 derived peptide (group 1 #7).
                                                                           peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                               91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        entry)
                                                                                                                                                                                                             92.2%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         antigen; infectious disease; prophylactic;
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                                                                                                                                                                                                0,
                                                                                                                                                                                                              Score 83;
Pred. No.
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                                                                                                                                                                                                Mismatches
                                                                                                                                                                                                              1.2e-07
                                                                                                                                                                                                                           DВ
                                                                                                                                                                                                                           18;
                                                                                                                                                                                                                        Length 15;
                                                                                                                                                                                                Indels
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Peptide from library spanning whole

of hsp65

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Best Local
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                                                                                                                                                                                                                                                                               ULT 5
43458
                                                                                                                                                                                                                                                                                                                                                                                                                                             AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides conty, this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                           Heat shock protein; hsp58; autoimmune disease; hsp65; vaccine; rheumatoid arthritis; antigen; infectious disease; prophylactipristane induced arthritis; PIA.
                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Polypeptide derived from bacterial heat shock protein 65 in diagnosis, prophylaxis and treatment of auto-immune dirheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Hsp; heat shock protein; Mycobacterium bovis; microbial; diagnosis;
rheumatoid arthritis; autoimmune disease; treatment; vaccine;
                                                        03-APR-1997
                                                                                W09711966-A1
                                                                                                                                                                                                                 08-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Example 1; Figure 1; 88pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Elson CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-SEP-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    04-APR-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          prophylaxis.
          27-SEP-1995;
                                                                                                       Mycobacteria
                                                                                                                    Synthetic.
                                                                                                                                                                                         Mycobacteria sp. hsp68 derived peptide (group 1 #8).
                                                                                                                                                                                                                                           AAW43458;
                                                                                                                                                                                                                                                                 AAW43458 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (PEPT-) PEPTIDE THERAPEUTICS
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                                26-SEP-1996;
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                                                                                                                                                                                                                                                                                                                                        NVVLEKKWGAP 16
                                                                                                                                                                                                                                                                                                                             NVVLEKKWGAP
                                                                                                                                                                                                                                                                                                                                                                            11;
                                                                                                                                                                                                                                                                                                                                                                                       Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                            16 AA;
                                                                                                                                                                                                                                                                                                                                                                            Conservative
                                                                                                      gp
                                                                                                                                                                                                                 (first entry)
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          95GB-0019737
                                96WO-GB02382.
                                                                                                                                                                                                                                                                 peptide;
                                                                                                                                                                                                                                                                                                                                                                                       67.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                 16
                                                                                                                                                                                                                                                                                                                                                                          0,
                                                                                                                                                                                                                                                                                                                                                                                        Score 61;
Pred. No.
                                                                                                                                                     infectious disease; prophylactic;
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                                                                                                                                                                                                                                                                                                                                                                            Mismatches
                                                                                                                                                                                                                                                                                                                                                                                      DB 17;
0.00088;
                                                                                                                                                                                                                                                                                                                                                                                                Length 16;
                                                                                                                                                                                                                                                                                                                                                                          Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for use
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RESULT 6
RARS9478
ID 4788
XX AARS
AC AARS
AC AARS
XX HSp.
DT 11-N
XX HSp.
KW Hsp.
KW rhee
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XX Synt
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Best Local 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                This peptide is one of a library (see AAW43451-W4355) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW4351 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PTA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid
                                                                                                           Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Hsp; heat shock protein; Mycobacterium bovis; microbial; diagnosis;
rheumatoid arthritis; autoimmune disease; treatment; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Disclosure; Fig la; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                        27-SEP-1994;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-APR-1996.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Peptide from library spanning whole
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR94778;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR94778 standard; peptide;
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                                                        Example 1; Figure 1; 88pp; English
                                                                                                                                                                                                                                  WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                          Elson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                 27-SEP-1995;
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                                                                                                                                                                                                                                                                                    Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         16 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                        94GB-0019553
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100.0%; Pr
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
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                                                                                                                                           e.g
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AAR94773-R94878 are overlapping peptides

of a library spanning

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                                                                                                               This peptide is one of a library (see AAW43451-W43556) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides contg. this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  \begin{tabular}{ll} \beg
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Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAW43456
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         1 GPKGRNVVLEK 11
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arthritis; PIA.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                LTD.
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Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             DB 17;
0.0043;
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Query Match

38;

Score

57;

DВ

18;

Length 16;

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RESULT 9
AAB88272
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AAY93330
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                                                                                                                                                                                                                                                                                                                                                                             Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence represents an epitope of the heat shock professional professio
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAY93330 standard;
Heat shock protein-65; hsp-65; epitope; immune response inducer; vaccine; gene t
                                                                 Hsp-65 peptide epitope #46.
                                                                                                          17-MAY-2001
                                                                                                                                                                                           AAB88272 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 3;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         05-NOV-1998;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         04-SEP-2000
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                                                                                                                                                    AAB88272;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               especially arthritis.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  04-NOV-1999;
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inflammatory disorder; arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (HADA-) HADASIT MEDICAL RES
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                                                                                                                                                                                                                                                                                                                                        7 VVLEKKWGAP 16
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                                                                                                                                                                                                                                                                                                 VVLEKKWGAP 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 7;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    16
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                                                                                                                                                                                                                                                                                                                                                                                  Conservative
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                                                                                                      (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              are
                                                                                                                                                                                           Peptide;
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                                                                                                                                                                                                                                                                                                                                                                                                   61.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         The peptide may also be used to raise then used for passive immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Kashi Y;
                                                                                                                                                                                             11
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                                                                                                                                                                                                                                                                                                                                                                               0;
                                                                                                                                                                                                                                                                                                                                                                                                     Score 55;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pred. No. 0.0043; ); Mismatches 0;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           vaccine;
  therapy;
                                                                                                                                                                                                                                                                                                                                                                                                     DB 21;
0.0097;
                     antibacterial;
    terial; tuberculostatic;
bacterial infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           autoimmune disease;
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                                                                                                                                                                                                                                                                                                                                                                                                                         Length 16
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RESULT 10
AAB88269
ID AAB88
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Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             The present sequence is a peptide epitope derived from Mycobacterial heat shock protein 65. This peptide epitope is useful for inducing a cytotoxic T-cell (CTL) response in vitro for an infectious microbe e.g. Mycobacteria e.g. Mycobacterium tuberculosis; Rickettsia; Chlamydia; Trypanosoma; Helicobacter; Leishmania; Trichomonas e.g. T. vaginalis; Synechoccus e.g. S. vulcanis; Cowdria e.g. C.ruminatium; M.leprae; M.paratuberculosis; Brucella abortus; Leptospira interrogans; Legionella pneumophila; Coxiella burneti; Staphylococcus aureus; Salmonella typhi; Yersinia enterocolitica; Neisseria meningitidis; N.gonorrhoeae; Haemophilus influenzae and Pseudomonas aeruginosa. This peptide epitope is useful for treating bacterial and parasitic infections such as
                                                                                                                                                                                                                    Heat shock protein-65; hsp-65; epitope; immune response inducer; vaccine; gene
                                                                                                                                                                                                                                                                                                                                      17-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                         AAB88269 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacterium sp
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                       30-AUG-2000; 2000WO-IB01326
                                                                   08-MAR-2001.
                                                                                                                                                        Mycobacterium sp
                                                                                                                                                                                                    tuberculosis
                                                                                                                                                                                                                                                                                     Hsp-65 peptide epitope #43.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 2001-244396/25
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Kiessling R, Charo JM,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              (KIES/) KIESSLING R.
(CHAR/) CHARO J M.
(OTEN/) OTENHOFF T H M.
(GELU/) GELUK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               30-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       30-AUG-2000; 2000WO-IB01326
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-MAR-2001
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WO200116174-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    1 GPKGRNVVL 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPKGRNVVL 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     polypeptides containing epitopes derived from Mycobacterial protein 65 useful for treating bacterial and parasitic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           9; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Page 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   such as tuberculosis
                                                                                                                                                                                                                                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Ą.
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                                                                                                                                                                                                                                                                                                                                                                                                                         Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  52.2%;
100.0%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         117pp;
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                                                                                                                                                                                                                                                                                                                                                                                                                           10
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Score 47;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mismatches
                                                                                                                                                                                                                       therapy;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  DB 22;
0.16;
                                                                                                                                                                                                                         antibacterial; tuberculostatic;
therapy; bacterial infection;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Geluk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              0
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AAB88279
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Best Local s
Matches &
                                                      (KIES/) KIESSLING R.
(CHAR/) CHARO J M.
(OTEN/) OTENHOFF T H M.
(GELU/) GELUK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            The present sequence is a peptide epitope derived from Mycobacterial heat shock protein 65. This peptide epitope is useful for inducing a cytotoxic T-cell (CTL) response in vitro for an infectious microbe e.g. Mycobacteria e.g. Mycobacterium tuberculosis; Rickettsia; Chlamydia; Trypanosoma; Helicobacter; Leishmania; Trichomonas e.g. T.vaginalis; Yrypanosoma; S.vulcanis; Cowdria e.g. C.ruminatium; M.leprae; Synechoccus e.g. S.vulcanis; Cowdria e.g. C.ruminatium; M.leprae; M.paratuberculosis; Brucella abortus; Leptospira interrogans; Legionella pneumophila; Coxiella burnetii; Staphylococcus aureus; Salmonella typhi; Yersinia enterocolitica; Neisseria meningitidis; N. gonorrhoeae; Haemophilus influenzae and Pseudomonas aeruginosa. This peptide epitope is useful for treating bacterial and parasitic infections such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (KIES/) KIESSLING R. (CHAR/) CHARO J M. (OTEN/) OTENHOFF T H N (GELU/) GELUK A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Novel
shock
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI; 2001-244396/25
                           Kiessling R,
                                                                                                                                                                                                                                                             Mycobacterium sp
                                                                                                                                                                                                                                                                                                       Heat shock protein 65; hsp-65; epitope; antibacterial; tuberculostatic; immune response inducer; vaccine; gene therapy; bacterial infection;
                                                                                                                                                                                                                                                                                                                                                                                      17-MAY-2001
                                                                                                                                                                                                                                                                                                                                                                                                                   AAB88279;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Kiessling R,
WPI; 2001-244396/25
                                                                                                                                      30-AUG-1999;
                                                                                                                                                                   30-AUG-2000;
                                                                                                                                                                                                08-MAR-2001
                                                                                                                                                                                                                               WO200116174-A2
                                                                                                                                                                                                                                                                                            tuberculosis.
                                                                                                                                                                                                                                                                                                                                                    Hsp-65 peptide epitope
                                                                                                                                                                                                                                                                                                                                                                                                                                                   AAB88279
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    infections, such as tuberculosis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        30-AUG-1999;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              3 GPKGRNVV 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             1 GPKGRNVV 8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 polypeptides containing epitopes derived from Mycobacterial protein 65 useful for treating bacterial and parasitic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        8; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                 standard; Peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Page 55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Conservative
                                                                                                                                                                     2000WO-IB01326
                                                                                                                                                                                                                                                                                                                                                                                      (first
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Charo
                            Charo
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                                                                                                                                      99US-0151396
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100.0%; Pr
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                            ,ML
                                                                                                                                                                                                                                                                                                                                                                                   entry)
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                                                                                                                                                                                                                                                                                                                                                       #53.
                              Otenhoff THM,
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   φ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Score 43;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Mismatches
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                              Geluk
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for inducing a cytotoxic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Indels
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RESULT 12
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Best Local
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AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65
                                                                                                        Example 1;
                                                                                                                                    in diagnosis, rheumatoid ar
                                                                                                                                                                                            WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                                                                             04-APR-1996
                                                                                                                                                                                                                                                                                                                                                                          W09610039-A1
                                                                                                                                                                                                                                                                                                                                                                                                    Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacteria e.g. Mycobacterium tuberculosis; Rickettsia; Chlamydia; Trypanosoma; Helicobacter; Leishmania; Trichomonas e.g. T.vaginalis; Synechoccus e.g. S.vulcanis; Cowdria e.g. C.ruminatium; M.leprae; M.paratuberculosis; Brucella abortus; Leptospira interrogans; Legionella pneumophila; Coxiella burnetii; Staphylococcus aureus; Salmonella typhi; Yersinia enterocolitica; Neisseria meningitidis; N.gonorrhoeae; Haemophilus influenzae and Pseudomonas aeruginosa. This peptide epitope is useful for treating bacterial and parasitic infections such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Novel
shock
                                                                                                                                                Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease
                                                                                                                                                                                                                                                       (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                  27-SEP-1994;
                                                                                                                                                                                                                                                                                                                27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                 prophylaxis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         11-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAR94781;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                AAR94781 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       shock protein 65. This peptide epitope is useful for inducing T-cell (CTL) response in vitro for an infectious microbe e.g.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     The present
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Page 55; 117pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Novel polypeptides containing epitopes derived shock protein 65 useful for treating bacterial infections, such as tuberculosis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Peptide from
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       tuberculosis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                 cheumatoid arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                             isp; heat shock protein; Mycobacterium bovis; microbial; diagnosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          w
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          GPKGRNV
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        GPKGRNV 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Similarity
                                                                                                                                  is, prophylaxis arthritis.
                                                                                                        Figure 1;
                                                                                                                                                                                                                        Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          library spanning whole of hsp65.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (first
                                                                                                                                                                                                                                                                                  94GB-0019553
                                                                                                                                                                                                                                                                                                                95WO-GB02295
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         43.3%; 50
100.0%; Pr
100.0%; 0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       entry)
                                                                                                     88pp;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     is a peptide epitope derived from Mycobacterial heat
                                                                                                                                                                                                                                                                                                                                                                                                                                                 autoimmune disease; treatment; vaccine;
                                                                                                      English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Score 39; DB; Pred. No. 6.4
0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  B
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6.4e+05;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          from Mycobacterial heat and parasitic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Length 9;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    for inducing a cytotoxic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                0,
                                                                                                                                                e.g.
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RESULT 13
AAW43459
Query Match
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Best Local s
Matches 6
                                                                                                                                                                                                                                                                                                 This peptide is one of a library (see AAM43451-W43556) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAM43451 to AAM43460. Mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WPI;
                                                                                    Sequence
                                                                                                                                                                                            hsp65
                                                                                                                                                                                                            hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Polypeptide(s) derived from microbial heat shock protein for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Heat shock protein; hsp58; autoimmune disease; hsp65; vaccine; rheumatoid arthritis; antigen; infectious disease; prophylacti
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               diseases such as
                                                                                                                                                                                                                                                                                                                                                                                                                               Disclosure; Fig la;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Elson CJ,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         03-APR-1997
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   08-APR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW43459 standard;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (see AAR94772). Peptides contg. this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                                hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of prophylaxis or treatment of an autoimmune disease such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          (PEPT-) PEPTIDE THERAPEUTIC LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              26-SEP-1996;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        11 KKWGAP 16
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Thompson
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ilarity 100.0%;
Conservative (
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                                                                                                                                                                                                                                                                                                                                                                                                                               91pp; English.
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100.0%;
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                      Score 38;
Pred. No.
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Pred. No.
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8.1;
                    DB 18
8.1;
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                                                                                                                                                  vaccines for rheumatoid
                                                                                                                                                                                                                                                                                                   Mycobacterial
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                                                                                                                                                                                                                                                                                                                                               Matches
                                                                                                                                                                                                                                                                                                          st Local
                                                                                                                                                                                                                                                                                                                                                                   This invention describes a novel fibrin (or other protein) gel (A) that includes a mixture of peptides (B), crosslinked with the gel to stimulate extension of neurites. The products of the invention have neurotrophic activity. (A) are useful for supporting tissues and for cell incorporation or growth, especially for stimulating growth and extension of neurites. Many different types of cells can bind to, and grow on (A), or related gels or three-dimensional matrices containing them, and the three-dimensional structures significantly increase (sometimes synergistically) neurite growth and extension. The gels may also include a protease inhibitor to control the rate at which they degrade in vivo.
                                   Polymer; biomaterial; conjugate; hydrogel; drug delivery; adhesive, sealant; tissue engineering; wound healing; scaffold; cell transplant; adhesion prevention; cell migration; collagenase;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI;
Synthetic
                                                                                       Proteoglycan binding domain of neural cell adhesion
                                                                                                                    08-NOV-2000
                                                                                                                                              AAB01586;
                                                                                                                                                                       AAB01586 standard;
                                                                                                                                                                                                                                                                                                                                               Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Claim 4; Page 10; 38pp; German.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Protein gel containing mixture of peptides, useful e.g. for stimulating growth and extension of neurites - \,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      08-JUN-2000; 2000DE-2010297
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Fibrin; fibrin gel; neurite extension; neurotrophic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Fibrin gel binding
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (UYZU-)
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                                                                                                                                                                                                                                                                                                         госат
                                                                                                                                                                                                                                                             3 KGRNVVLEK 11
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6; Conserv
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                                                                                                                  entry)
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66.7%;
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                                                                                                                                                                                                                                                                                                       Score 34;
Pred. No.
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                                                                                         molecule
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Search completed: October Job time: 26 secs

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Matches 6
                                                                                                                                                                                                                                                                                   osteonectin etc. These peptides can be incorporated into the biomaterial when they are designed with a strong nucleophile in the peptide chain such as cysteine. These peptides are potentially useful in controlling a variety of cellular reactions such as cell attachment, migration and overgrowth on a material surface when the material is non bio-degradable or slowly degradable, and cell migration through a material when that material is biodegradable. The peptides are also useful in the induction of particular cellular phenotypes. The matrix proteins also comprise peptide sequences which bind to glycoprotein cell surface receptors.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                unsaturated bond or a conjugated unsaturated group, by nucleophilic addition. The polymeric hydrogels can be used in a variety of applications. They can be used to deliver therapeutic molecules to a subject, as adhesives or sealants (e.g. sealing air leaks on the lung), as tissue engineering and wound healing scaffolds, and as cell transplant devices. The biomaterials are also useful for adhesion prevention to minimise unwanted operative or post-traumatic adhesions. A variety of adhesion promoting peptides have been identified as being the active domains of adhesion-promoting proteins such as fibronectin, vitronectin, laminin, collagen, von Willebrand factor
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Producing polymeric biomaterials by polymerizing components (e.g. polymer, protein or peptide) of useful for delivering therapeutic molecules to a adhesives or sealants
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                                                phenotypes. The matrix proc
which bind to glycoprotein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              peptide) of the biomaterial under conditions that allow polymerisation of the two components. Polymerisation occurs through
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       A method of making polymeric biomaterials is described comprising
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Disclosure; Page 53; 119pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Hubbell JA,
Tirelli N,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         01-FEB-1999;
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                                                                                                                                                                                                                                  Sequence
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            combining
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KGRDVILKK
                                                                                                                                            Similarity
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                                                                                                                                                                                                                                  14 AA;
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Pred. No.
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118.264 Million cell updates/sec
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Compugen Ltd.
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25K kidney and gal
melanotropin alpha
melanotropin alpha
hypothetical 1.7K
H-hyosophorin - Ja
T-cell receptor be
angiotensin-conver
     protoporphyrinogen
lignin peroxidase
T-cell receptor be
methyl coenzyme M
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alpha-2 collagen -
H+-transporting AT
hypothetical prote
collagen alpha cha
                                                                                                            morphogenetic neur
hemoglobin, extrac
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Matches Best Query Match Local

Similarity

28.9%;

Score 26; DB 2; Pred. No. 6.7e+02 Mismatches

Length 14;

Indels

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Gaps

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Conservative

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ALIGNMENTS

RESULT 154945

gene C protein - Escherichia coli (fragment)
C;Species: Escherichia coli
C;Date: 07-Jun-1996 #sequence_revision 07-Jun-1996 #text_change 08-Oct-1999
C;Accession: 154945
R;Tao, T.; Bourne, J.C.; Blumenthal, R.M.
J. Bacteriol. 173, 1367-1375, 1991
A;Title: A family of regulatory genes associated with type II restriction-mc A;Reference number: 154945; MUID:91139577
A;Accession: 154945

restriction-modificatio

A;Status: preliminary; translated from GB/EMBL/DDBJ A;Molecule type: DNA A;Residues: 1-14 <RES>

A;Cross-references: GB:M63619; NID:g147664; PIDN:AAA24555.1; PID:g147665

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RESULT 2
E55501
25K kidney and gallbladder stone protein - unidentified bacterium (fragment)
C.Species: unidentified bacterium
C.Species: unidentification 07-Feb-1997 #text_change 10-Jul-1998
C.Accession: E58501
R.Binette, J.P.; Binette, M.B.
submitted to the Protein Sequence Database, October 1996
A;Description: The protein Sequence Database, October 1996
A;Description: The protein Sequence Database, October 1996
A;Description: The protein Sequence Database, October 1996
A;Reference number: A58501
A;Recession: E58501
A;Recession: E58501
A;Recession: E58501
A;Residues: 1-16 < ABIN
A;Experimental source: human kidney and gallbladder stones
A;Note: tentative identification of 8-Gly and 13-Ser
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RESULT
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                                                                                                            3 KGRNVVLEKK 12
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                                                                 KGGNVNLSKE
                                                                                                                                                      l Similarity
6; Conserv
                                                                                                                                                        Conservative
                                                                                                                                                                             28.9%;
                                                                                                                                                      Score 26; DB Pred. No. 7.6e 1; Mismatches
                                                                                                                                                 DB 2; L.
7.6e+02;
3;
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C;Species: Equus caballus (domestic horse)
C;Date: 31-Dec-1991 #sequence_revision 31-Dec-1991 #text_change 20-Mar-1998
C;Accession: A91785; A01464
R;Dixon, J.S.; Li, C.H.
J. Am. Chem. Soc. 82, 4568-4572, 1960
A;Title: The isolation and structure of alpha-melanocyte-stimulating hormone from hors A;Reference number: A91785
A;Recession: A91785
A;Accession: A91785
A;Accession: A91785
A;Accession: A91785
A;Accession: A91785
C;Superfamily: corticotropin-lipotropin
C;Keywords: blocked amino end; blocked carboxyl end; hormone; pituitary
F;1/Modified site: blocked amino end (Ser) (probably acetylated) #status experimental
F;13/Modified site: blocked carboxyl end (Val) (probably amidated) #status experimental
                                                                                                                            R;Chai, S.; Szepan, U.; Lueder, G.; Trautner, T.A.; Alonso, J.C. Gene 129, 41-49, 1993
A;Title: Sequence analysis of the left end of the Bacillus subtilis A;Reference number: JN0729; MUID:93328123
A;Accession: JN0730
                                                                                                                                                                                                                                                                                                                              RESULT 5
JN0730
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A;Molecule type: protein
A;Residues: 1-13 <LIC>
A;Residues: 1-13 <LIC>
C;Superfamily: corticotropin-lipotropin
C;Keywords: acetylated amino end; blocked carboxyl end; hormone; pituitary
F;1/Modified site: acetylated amino end (Ser) (partial) #status experimental
F;13/Modified site: blocked carboxyl end (Val) (probably amidated) #status experimental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Accession: A01464
R;Li, C.H.; Danho, W.O.; Chung, D.; Rao, A.J.
Biochemistry 14, 947-952, 1975
A;Title: Isolation, characterization, and amino A;Reference number: A90393; MUID:75146434
A;Accession: A01464
                                                                                                                                                                                                                                               hypothetical 1.7K protein - phage SPP1
N;Alternate names: hypothetical protein
C;Species: phage SPP1
C;Date: 03-Feb-1994 #sequence_revision (
                                                                                                A; Molecule type: DNA
A; Residues: 1-15 < CHA>
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C;Species: Camelus dromedarius (Arabian camel)
C;Date: 13-Jul-1981 #sequence_revision 13-Jul-1981 #text_change 20-Mar-1998
                                                                             A; Cross-references: EMBL: X65941
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Best Local Similarity Matches 5; Conserv
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Pred. No.
Score 24; DB 2;
Pred. No. 1.5e+03;
2; Mismatches 2
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Pred. No. 9.
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A; Residues: 1-15 < CAS>
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A; Residues: 1-11 <SEK>
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Best Local
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Biochem. Biophys. Res. Commun. 155, 332-337, 198 A; Mitle: Isolation of angiotensin-converting enz A; Reference number: A31570; MUID:88326322 A; Accession: A31570
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J. Biol. Chem. 264, 15922-15929, 1989
A;Title: Structural studies of fertilization-associated carbohydrate-rich glycoprotei of a novel penta-antennary N-linkedglycan chain in the tandem repeating glycopeptide A;Reference number: A34243; MUID:89380184
A;Accession: A34243
                                               A;Molecule type: protein
A;Residues: 1-8 <KOH>
A;Residues: 1-8 oxroe is designated as Neothunnus macropterus
C;Superfamily: unassigned animal peptides
                                                                                                                                                                                                                                                                                                                                                                                                                                               angiotensin-converting enzyme inhibitor - yellowfin tuna C;Species: Thunnus albacares (yellowfin tuna) C;Decies: Thunnus albacares (yellowfin tuna) C;Date: 31-Mar-1990 #sequence_revision 31-Mar-1990 #text_change 18-Aug-2000 C;Accession: A31570 C;
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A;Title: T cell receptor genes in a series of class I major histocompatibility comple allelic exclusion and antigen-specific repertoire.
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C;Species: Mus musculus (house mouse)
C;Date: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change 05-Nov-1999
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C;Date: 07-Sep-1990 #sequence_revision 07-Sep-1990 #t
C;Accession: A34243
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angiotensin-converting
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Pred. No. 2.3e+03
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No. is the number of results predicted by chance to a greater than or equal to the score of the result bear derived by analysis of the total score distribution
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P81829;
930-MAY-2000
30-MAY-2000
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Submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.

-I- FUNCTION: ACTS THROUGH INTRACELLULAR CALCIUM IN MALPIGHIAN TUBULE STELLATE CELLS TO RAISE CHLORIDE CONDUCTANCE.
                                                                                                                                                                                                                                                  This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation—the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entities requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
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PP OR DLK.

Drosophila melanogaster (Fruit fly).

Drosophila melanogaster (Fruit fly).

Eukaryota; Metazoa; Arthropoda; Tracheata; Hexapoda; Insecta;

Eukaryota; Neoptera; Endopterygota; Diptera; Brachycera; Muscomorpha;

Ephydroidea; Drosophilidae; Drosophila.

NCBI_TaxID=7227;
                                                                                                                                                EMBL; AC006496; -; NOT_ANNOTATED_CDS.
FlyBase; FBgn0028418; Leucokinin.
Neuropeptide; Amidation.
MOD_RES
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AMIDATIO
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"Isolation and characterization of a
Drosophila melanogaster.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE-Neurosecretory cell;
MEDLINE-20044845; PubMed-10574744;
Terhzaz S., O'Connell F.C., Pollock V.P., Kean L., Davies S.A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQUENCE
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FAR6_PANRE
HTF1_ROMMII
HTF2_CARMO
HTF_HELZE
HTF_NAUCI
HTF_TABAT
LABA_JATMU
FFIS_NICPL
LMA1_LOCMI
SAP2_ARBPU
ACT_PINPS
                                                Score 25.5; DB 1; Pred. No. 4e+02;
                                                                                                                         AMIDATION.
4793A08F251C9525 CRC64;
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SUMMARIES

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MORN_HUMAN
LIGA_TRAVE
MLB_SQUAC
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UP01_CAEEL
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Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

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38719550 residues

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hits satisfying chosen parameters:

Scoring table: Sequence: Title: Perfect score:

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US-09-847-637B-2

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GenCore version (c) 1993 - 2002

Database :

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         MOD_RES
                                                                                                                                                                                            SPECIES=Horse; TISSUE-Pituitary;
Dixon J.S., Li C.H.;
"The isolation and structure of alpha-melanocyte-stimulating from horse pituitaries,";
J. Am. Chem. Soc. 82:4568-4572(1960).
-!- SIMILARITY: BELONGS TO THE POMC FAMILY.
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                                                                                                                                                                                                                                                                                                                                                                                         SPECIES=Horse;
Dixon J.S., Li
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            SPECIES-C.dromedarius;
MEDLINE-7516434; PubMed-1125179;
Li C.H., Danho W.O., Chung D., Rao A.J.;
"Isolation, characterization, and amino acid melanotropins from camel pituitary glands.";
Biochemistry 14:947-952(1975).
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Camelus dromedarius (Dromedary) (Arabian camel),
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MEDLINE=92270473; PubMed=1667689;
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Anolis carolinensis (Green anole) (American chameleon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Lepidosauria; Squamata; Iguania; Iguanidae; Polychrotinae; Anolis
NCBI_TaxID=28377;
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Peptides 12:1261-1266(1991).
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                                                                                                   A91785; MTHOAD.
                                                                                                                                                    A01464; MTCMAD.
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Acetylation; Amidation.

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DE Morpho
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SEQUENCE
              Nature
[2]
                                                                                                                     Bos taurus (Bovine),
Anthopleura elegantissima (Sea anemone), and
Hydra attenuata (Hydra) (Hydra vulgaris).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
NCBI_TaxID=9606, 10116, 9913, 6110, 6087;
                                                                                                                                                                                                                                  MORN_HUMAN STANDARD;

P01163;

21-JUL-1986 (Rel. 01, Created)

21-JUL-1986 (Rel. 01, Last seq

01-OCT-1996 (Rel. 34, Last ann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    p18691;
01-NOV-1990 (Rel. 16, Created)
01-NOV-1990 (Rel. 16, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
01-NOV-1990 (Rel. 16, Last annotation update)
Angiotensin-converting enzyme inhibitor.
Thunnus albacares (Yellowfin tuna) (Neothunnus macropterus).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Scombroloscombridae; Thunnus.
                        "Conserved amino acid sequence of from coelenterates to humans."; Nature 293:579-580(1981).
                                                            SPECIES=Human, Rat, and Bovine; MEDLINE=82035850; PubMed=7290191; Bodenmuller H., Schaller H.C.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            TISSUE=Muscle;
MEDLINE=88326322; PubMed=3415688;
Kohama Y., Matsumoto S., Oka H.,
                                                                                                SEQUENCE.
                                                                                                                                                                                                   Rattus
                                                                                                                                                                                                                         Morphogenetic neuropeptide (Head activator) (HA).
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"Isolation of angiotensin-converting
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Title:
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Listing first 45 summaries
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 SPTREMBL_19:*
1: sp_archea:*
2: sp_bacteria:
3: sp_fungi:*
4: sp_human:*
5: sp_human:*
5: sp_manmmal:*
7: sp_mhc:*
8: sp_organelle
9: sp_phage:*
10: sp_plant:*
11: sp_rodent:*
11: sp_rodent:*
12: sp_virus:*
13: sp_vertebz:
14: sp_urclass:
15: sp_archeap:
16: sp_bacteria
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Gapop 10.0 , Gapext 0.5
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sp_vertebrate:*
sp_unclassified:*
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result NO: 1 1 2 3 3 4 4 6 6 7 7	sco re 26 re 24 24 23	Query Match 28.9 27.8 27.8 26.7 25.6	Length DB	DB 211 2 1 1 5 1 5 1 5 1 5 1 5 1 5 1 5 1 5	ID 077599 070580 070580 070580 070580 070580 070580 070580 070580 080642 080642 080645 080645 080645
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ALIGNMENTS

RESULT 070580 ID 0 AC 0 DT 0	Qu Be Ma Qy Db	SO DEFENDE	2888		Q47599 ID Q
LT 2 80 070580 PRELIMINARY; PRT; 10 AA. 070580; O1-AUG-1998 (TrEMBLrel. 07, Created) 01-AUG-1998 (TrEMBLrel. 07, Last segmence undate)	Query Match 28.9%; Score 26; DB 2; Length 14; Best Local Similarity 50.0%; Pred. No. 9.4e+02; Matches 4; Conservative 3; Mismatches 1; Indels 0; Gaps 0; 5 RNVVLEKK 12 : ::	SEQUENCE FROM N.A. SEQUENCE FROM N.A. MEDLINE-91139577; PubMed-1995588; MEDLINE-91139577; PubMed-1995588; Tao T., Bourne J.C., Blumenthal R.M.; To Tamily of regulatory genes associated with type II restriction- modification systems."; J. Bacteriol. 173:1367-1375(1991). EMBL; M63619; AAA24555.1; NON_TER 1 NON_TER 1 NON_TER 1 NON_TER	Escherichia coli. Bacteria; Proteobacteria; gamma subdivision; Enterobacteriaceae; Escherichia. NCBL_TaxID=562;	01-NOV-1996 (TrEMBLrel. 01, Created) 01-NOV-1996 (TrEMBLrel. 01, Last sequence update) 01-NOV-1998 (TrEMBLrel. 08, Last annotation update) C (FRAGMENT).	99 PRELIMINARY; PRT; 14 AA.

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RESULT 4
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01-MAY-2000 (TrEMBLrel. 13, C)
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of the carbonic anhydrase 3 (
Gene 214:157-155(1999)
EMBL; AJ006474; CAA07057.1; -
MGD; MGI:1351477; Cars.
MGD; MGI:88270; Cars.
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01-NOV-1996 (TrEMBLrel.
01-DEC-2001 (TrEMBLrel.
Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
NCBL_maxID=9606;
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Viruses; dsDNA viruses,
T4-like phages.
NCBI_TaxID=10665;
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Mus musculus (Mouse).
                                                                                                                                                                                                                                                                                                                  Q9UNF2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Keller
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"Gene 68, a new bacteriophage T4 gene which codes for the
ore protein is involved in head size determination.";
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LLIETWGKP 14
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X01414; CAA25657.1; -.

ER 15 15

NCE 15 AA; 1713 MW; 1B4
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37.5%;
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                            Craniata; Vertebrata; Euteleostomi; Catarrhini; Hominidae; Homo.
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O9R4P5; PRT; 15 AA.
O1-MAY-2000 (TrEMBLrel. 13, Created)
O1-MAY-2000 (TrEMBLrel. 13, Last sequence update)
O1-JUN-2000 (TrEMBLrel. 14, Last annotation update)
defined
Int. J.
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Ratcliffe T.A., Vitz J.R., Ray D.B.;
Ratcliffe T.A., Vitz J.R., Ray D.B.;
"SNP located within intron 32 of human pro-alpha 1 (I) collagen
at 10,828 bp: cytosine replaces adenine.";
submitted (FEB-1999) to the EMBL/GenBank/DDBJ databases.
                                                                                           RIBOSOMAL PROTEIN L24 (FRAGMENT).
Brevundimonas diminuta (Pseudomonas
Bacteria; Proteobacteria; alpha subo
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060842;
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SEQUENCE
          "Comparative ribosomal protein sequence analyses
"Comparative ribosomal protein sequence analyses
                                                                      Brevundimonas.
NCBI_TaxID=293;
                                                                                                                                                                                                                                                                                                                                   Sowden J., Smith H., Morrison K., Edwards Y.; 
"Sequence comparisons and functional studies 
of the carbonic anhydrase 3 (CA3) gene."; 
Gene 214:157-165(1999).
                                                                                                                                                                                                                                                                                                                                                                                                         Homo sapiens (Human).
Eukaryota; Metazoa; Chordata;
Mammalia; Eutheria; Primates;
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                                         MEDLINE=95244309; PubMed=7727274;
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Syst. Bacteriol.
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Pseudomonas, and its relatives. Bacteriol. 45:268-273(1995).
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953 MW;
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Maximum Match 100%
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  October 17, 2002, 17:42:03; Search time 10.5 Seconds (without alignments) 37.220 Million cell updates/sec
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| cgn2_6/ptodata/1/1aa/5B_COMB.pep:*
| cgn2_6/ptodata/1/1aa/6A_COMB.pep:*
| cgn2_6/ptodata/1/1aa/6A_COMB.pep:*
| cgn2_6/ptodata/1/1aa/BCOMB.pep:*
| cgn2_6/ptodata/1/1aa/backfiles1.pep:*
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Copyright (c) 1993 - 2002 Compugen
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US-08-467-822-11
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; Patent No. 5;
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                  LENGTH:
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ALIGNMENTS

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Sequence 11. Application US/08467822
Patent No. 58.3460
GENERAL INFORMATION:
APPLICANT: Labigne, Agnes
APPLICANT: Squerbaum, Sebastien
APPLICANT: Squerbaum, Sebastien
APPLICANT: Ferrero, Richard L.
APPLICANT: Friberg, Jean-Richel
TITLE OF INVENTION: MANUNCERIC COMPOSITIONS AGAINST
TITLE OF INVENTION: POLYPEPTIDES
NUMBER OF SEQUENCES: 44
CORRESPONDENCE ADDRESS: 45
ADDRESSEE: Finegan, Henderson, Farabow, Garrett &
ADDRESSEE: Dic.
COUNTRY: USA
CITY: Washington
STREET: 1300 I Street, N.W.
CITY: Washington
STREET: D.C.
COUNTRY: USA
ZIP: 20005-3115
COMPUTER READABLE FORM:
MEDIUM TIPE: Ploppy disk
COMPUTER: IBM FC compatible
OPERATION NUMBER: US-008/467,822
FILING DATE: 06-JUN-1995
CLASSIFICATION NUMBER: US-08/467,822
FILING DATE: 06-JUN-1995
CLASSIFICATION NUMBER: US-08/467,822
FILING DATE: 07-ANX-1995
CLASSIFICATION NUMBER: US-08/467,822
FILING DATE: 07-ANX-1995
CLASSIFICATION NUMBER: US-08/467,822
FILING DATE: 08-ANX-1995
CLASSIFICATION DATE: 08-ANX-1995
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US-08-432-697-11
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Patent No. 6248330
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Labigne, Agnes
APPLICANT: Sauerbaum, Sebastie
APPLICANT: Sauerbaum, Sebastie
APPLICANT: Serrero, Richard L.
APPLICANT: Thiberge, Jean-Mich
TITLE OF INVENTION: IMMUNOGEN;
TITLE OF INVENTION: HELICOBAC'
TITLE OF INVENTION: POLYPEPTII
NUMBER OF SEQUENCES: 44
NUMBER OF SEQUENCES: 44
                                                                                                                                                                                                                                                                                                                  TELEFAX: (202) 408-44
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single TOPOLOGY: linear MOLECULE TYPE: peptide 3-467-822-11
                                                                                                                                                                                                                                                                                               SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                        ATTORNEY/AGENT INFORMATION: NAME: Meyers, Kenneth J.
                                                                                                                                                                                                                      TOPOLOGY: 11
MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                            REGISTRATION NUMBER: 25,146
REFERENCE/DOCKET NUMBER: 03
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICATION NUMBER: US/0: FILING DATE: 02-MAY-1995 CLASSIFICATION: 424
                                                                                                                                                                                                                                                  LENGTH: 8 amino acids
TYPE: amino acid
STRANDEDNESS: single
                                                                                                                                                                                                                                                                                                                                             TELEPHONE:
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                                                                                                                                             Conservative
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HELICOBACTER INFECTION, POLYPEPTIDES FOR USE IN THE COMPOSITIONS, AND NUCLEIC ACID SEQUENCES ENCODING SAID POLYPEPTIDES
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85.7%;
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Pred. No. 1.7e+05;
Pred. No. 1.7e+05;
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Pred. No.
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1.7e+05;
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RESULT 4
US-08-584-043A-80
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                                                                                                                                Sequence 80, Application US/08584043A Patent No. 6344436
                                                                                                                                                                                                                                                                                                Matches
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Best Local :
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                                                                                                GENERAL INFORMATION:
APPLICANT: Smith, Louis C.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
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INFORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                 APPLICANT: Sparrow, James APPLICANT: Hauer, Jochen APPLICANT: Mims, Martha P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       CLASSIFICATION: 435
ATTORNEY/AGENT INFORMATION:
NAME: Meyers, Kenneth J.
REGISTRATION NUMBER: 25,
                TITLE OF INVENTION:
                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 8 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/432,697
FILING DATE: 02-MAY-1995
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TITLE OF INVENTION: HELICOBACTER INFECTION, POLYPEPTIDES FOR USE IN THE
TITLE OF INVENTION: COMPOSITIONS, AND NUCLEIC ACID SEQUENCES ENCODING SAID
NUMBER OF SEQUENCES:
                                                                                                                                                                                                                                                                                                                                                                               MOLECULE TYPE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TITLE OF INVENTION:
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2 GPRGRNV 8
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                                                                                                                                                                                                                                                                                              Local Similarity
mes 6; Conserv
                                                                                                                                                                                                                                                                                                                                                                                               TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                            STRANDEDNESS: single
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OF SEQUENCES:
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                                                                                                                                                                                                                                                                                                Conservative
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Ferrero, Richard L.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PatentIn
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             (202) 408-4000
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19-MAY-1995
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 MACROMOLECULE DELIVERY
                                   LIPOPHILIC PEPTIDES FOR
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AAW43460
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(without alignments)
71.087 Million cell updates/sec
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ō.	Human Factor V			ē	Reactive peptide	gr	Oregon green 5			aromyces	9				3		Human protein	domain bind	 A. tumefaciens 	Human tumor-assoc	mina		acid	Delivery peptide	SCav	Amino acid sequen	n secreted	ncoded	ncoded	iant humar	-	yte	Peptide from l
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ALIGNMENTS

RESULT 1
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ID AAY9

AAY93330 standard;

peptide;

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04-SEP-2000

(first entry)

AAY93330;

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Claim 3; Page 7; 58pp; English.
                                                                                                                                                Mycobacterium tuberculosis.
                                                         Naparstek Y,
                                                                        (HADA-) HADASIT MEDICAL RES SERVICES
                                                                                       05-NOV-1998;
                                                                                                     04-NOV-1999;
                                                                                                                                 WO200027870-A1.
                                                                                                                                                            Epitope; heat shock protein 60; Hsp60; vaccine; autoimmune disease; inflammatory disorder; arthritis.
                                                                                                                                                                                  Amino acid sequence
                                                                                                                  18-MAY-2000
                                           2000-376486/32.
                                                         Ulmansky R,
                                                                                       98US-0107213.
                                                                                                     99WO-IL00595
                                                                                                                                                                                  of an epitope of heat shock protein
                                                         Kashi Y;
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Query Match
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                                                                                                                                         the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Heat shock protein; hsp58; autoimmune disease; hsp65; vaccine; rheumatoid arthritis; antigen; infectious disease; prophylactic; pristane induced arthritis; PIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              The present sequence represents an epitope of the heat shock protein 60 (Hsp60) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring
                                                                                                     hsp65 homologue, hsp5 (see AAW14948-W14950)
                                                                                                                                                                                                                                      This peptide is one of a library (see
                                                                                                                                                                                                                                                                                                                                                           Elson CJ, Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                  03-APR-1997.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Mycobacteria
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                                                Sequence
                                                                                          prophylaxis
                                                                                                                                                                                                                                                                 Disclosure;
                                                                                                                                                                                                                                                                                          Polypeptide(s)
for treatment (
                                                                                                                                                                                                                                                                                                                                  WPI; 1997-212851/19
                                                                                                                                                                                                                                                                                                                                                                                                               27-SEP-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         AAW43458 standard; peptide; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
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                                                                                                                              act as self antigens and thus
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16 AA;
                                                                                          or treatment
                                                                                                                                                                                                                                                                Fig la; 91pp; English.
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                                                                                                                                                                                                                                                                                          ) derived of autoim
                                                    AA;
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                                                                                                                                                                                                                                                                                                                                                                                     THERAPEUTIC
                                                                                                                  hsp58,
                                                                                                                                                                                                                                                                                           autoimmune
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ent of an auto
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                                                                                                                                                                                                                                                                                         from microbial heat shock protein mmune disease esp. arthritis
                                                                                        is and thus have limited clinical use. The human or fragments of the hsp58 protein lay be useful in the development of vaccines for it of an autoimmune disease such as rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               0;
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           . No.
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                                                                                                                                                                                                                                       AAW43451-W43556) which represents
           DB 18; 3.1e-07;
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2.8e-08;
hes 0;
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Matches 14
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Mycobacteria
                      08-APR-1998
                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                               Example 1; Figure 1; 88pp;
                                                                                                                                                                                                                                                                                                                                                             Polypeptide derived from bacterial heat shock protein 65 in diagnosis, prophylaxis and treatment of auto-immune di
                                                                                                                                                                                                                                                                                                                                                                                              HPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 prophylaxis.
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                                         AAW43459;
                                                             AAW43459 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                     rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                  Elson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              rheumatoid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Hsp; heat shock protein; Mycobacterium bovis; microbial; diagnosis;
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                                                                                                                                                                                                   16 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              arthritis;
                                                                                                                                                           Conservative
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sp.
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hsp68 derived peptide (group 1 #9).
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                                                                                                                                                           Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              disease;
                                                                                                                                                                    76;
                                                                                                                                                                               DΒ
                                                                                                                                                                     2e-06;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              treatment; vaccine,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0,
                                                                                                                                                                              Length 16
                                                                                                                                                           Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Indels
                                                                                                                                                                                                                                                                                                                                                                disease
                                                                                                                                                           0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0;
                                                                                                                                                                                                                                                                                                                                                               use
e.g
                                                                                                                                                          Gaps
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RESULT 5
AAR94781
ID AARR
XX AAR
AC AAR
XX Pept
XX Pep
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Best Local S
Matches 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  This peptide is one of a library (see AAW43451-W4355) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group I peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hap65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hap65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W13950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Heat shock protein; hsp58; autoimmune disease; hsp65; vaccine; rheumatoid arthritis; antigen; infectious disease; prophylactic; pristane induced arthritis; PIA.
                                                         04-APR-1996
                                                                                                                                                                                                                         prophylaxis
                                                                                                                                                                                                                                                Hsp; heat shock protein; Mycobacterium bovis; microbial; diagnosis; rheumatoid arthritis; autoimmune disease; treatment; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic.
  27-SEP-1995;
                                                                                                             WO9610039-A1
                                                                                                                                                                    Synthetic
                                                                                                                                                                                                                                                                                                                                    Peptide from
                                                                                                                                                                                                                                                                                                                                                                                           11-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR94781;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      AAR94781 standard; peptide; 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Polypeptide(s) derived from microbial heat shock protein for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Elson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      (PEPT-) PEPTIDE THERAPEUTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        27-SEP-1995;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Local Similarity
nes 12; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              KKWGAPTITNDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  KKWGAPTITNDG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Fig la; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              sp.
                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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  95WO-GB02295.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 70;
Pred. No.
                                                                                                                                                                                                                                                                                                                                    whole of hsp65
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                DB 18;
2.2e-05;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         0
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RESULT 6
AAY93329
ID AAY9
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Best Local S
Matches 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides conty, this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
 The present sequence represents an epitope of 60 (Hsp60) of Mycobacterium tuberculosis. The
                                                            Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease rheumatoid arthritis.
                                      Claim 2; Page
                                                                                                               WPI;
                                                                                                                                                                                                                                                                                                                                                                            04-SEP-2000
                                                                                                                                                                                                                                                                                                                                                                                                     AAY93329;
                                                                                                                                                                                                                                                                                                                                                                                                                            AAY93329 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Example 1; Figure 1; 88pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 WPI; 1996-200888/20
                                                                                                                                      Naparstek Y,
                                                                                                                                                               (HADA-) HADASIT MEDICAL RES SERVICES
                                                                                                                                                                                       05-NOV-1998;
                                                                                                                                                                                                                 04-NOV-1999;
                                                                                                                                                                                                                                        18-MAY-2000
                                                                                                                                                                                                                                                                WO200027870-A1
                                                                                                                                                                                                                                                                                        Mycobacterium tuberculosis
                                                                                                                                                                                                                                                                                                                                                  Amino acid sequence of an epitope of heat shock protein 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-1994;
                                                                                                                                                                                                                                                                                                              Epitope; heat
inflammatory (
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        1 KKWGAPTTTNDG 12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                G
                                                                                                               2000-376486/32.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                KKWGAPTITNDG 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        l Similarity
11; Conserv
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                             t shock protein 60; Hsp60; disorder; arthritis.
                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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                                     7; 58pp;
                                                                                                                                      Ulmansky R,
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                                                                                                                                                                                        98US-0107213
                                                                                                                                                                                                                 99WO-IL00595
                                                                                                                                                                                                                                                                                                                                                                                                                           peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    74.78;
                                    English
                                                                                                                                       Kashi Y;
                                                                                                                                                                                                                                                                                                                                                                                                                            16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Score 65; DB Pred. No. 0.00 0; Mismatches
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                                                                                                                                                                                                                                                                                                                            vaccine;
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the heat shock protein peptide, and the
                                                                                                                                                                                                                                                                                                                            autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Length 15;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      RESULT 7
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Query Match
Best Local S
Matches 10
                                                               Query Match
Best Local
                                                      Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  AAR94779 standard; peptide;
                                                                                                         animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides contg. this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                                     AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the
                                                                                                                                                                                                                                Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAR94779;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       nucleic acid encoding it, are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
                                                                                          Sequence
                                                                                                                                                                                                     Example 1; Figure 1; 88pp;
                                                                                                                                                                                                                        rheumatoid
                                                                                                                                                                                                                                                            WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                                                 27-SEP-1994;
                                                                                                                                                                                                                                                                                                                                   27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                     04-APR-1996
                                                                                                                                                                                                                                                                                                                                                                     WO9610039-A1
                                                                                                                                                                                                                                                                                                                                                                                        Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                  Hsp; heat shock protein; Mycobacterium bovis; microbial; diagnosis; rheumatoid arthritis; autoimmune disease; treatment; vaccine;
                                                                                                                                                                                                                                                                                               (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                          prophylaxis
                                                                                                                                                                                                                                                                                                                                                                                                                                             Peptide from
                                                                                                                                                                                                                                                                                                                                                                                                                                                               11-NOV-1996
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Sequence
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7
                                    ب
                                                              Local
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                                   VVLEKKWGA 9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          VVLEKKWGAP 10
                  VVLEKKWGA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 VVLEKKWGAP 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   l Similarity
10; Conser
                                                    Similarity
9; Conserv
                                                                                          15
                                                                                                                                                                                                                        is, prophylaxis arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 63.2%;
nilarity 100.0%;
Conservative 0
                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                             library
                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                          A,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Ã,
                                                                                                                                                                                                                                                                                                                 94GB-0019553.
                                                                                                                                                                                                                                                                                                                                   95WO-GB02295
                                                            55.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                             spanning whole of hsp65
                                                                                                                                                                                                     English.
                                                     0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   15
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                                                    Score 48; DB Pred. No. 0.10; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Score 55; DB; Pred. No. 0.(
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   AA
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   DB 21; 1
0.0094;
thes 0;
                                                             DB 17
0.14;
                                                                       17;
                                                     0;
                                                                     Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 16;
                                                     Indels
                                                    0;
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                                                                                                                                                                                                                                         use
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                                                    0,
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AAW43460
                                                                                                                             В
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                                                                                                                                                                                                      RESULT
                                                                                                                                                               Query Match
Best Local S
Matches 9
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                                                                                                                                                                                                     Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                  Elson
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RESULT 8
AAW43457
Heat shock rheumatoid
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                                                                                                                                                                                                           AAW43460 standard; peptide; 16
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of prophylaxis or treatment of an autoimmune disease such as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Polypeptide(s) derived from microbial heat shock protein for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW43457 standard; peptide;
                                                                   Mycobacteria
                                                                                                                    08-APR-1998
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Fig la; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI; 1997-212851/19
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (PEPT-) PEPTIDE THERAPEUTIC LTD
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         pristane induced arthritis; PIA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Mycobacteria
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    08-APR-1998
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Heat shock rheumatoid
                                                                                                                                                                                                                                                                                                                                                                           1 VVLEKKWGA 9
                                                                                                                                                                                                                                                                                                                             VVLEKKWGA 15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         СJ,
                                                                                                                                                                                                                                                                                                                                                                                                                         Similarity
9; Conser
protein; hsp58;
arthritis; antic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Thompson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       15
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  protein; h
arthritis;
                                                                                                                                                                                                                                                                                                                                                                                                                         Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   sp.
                                                                   sp. hsp68 derived peptide (group 1 #10).
                                                                                                                 (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     95GB-0019737.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   hsp68 derived peptide (group 1 #7).
                                                                                                                                                                                                                                                                                                                                                                                                                  55.2%; 500
100.0%; Pr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     hsp58; autoimmune disease; hsp65; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antigen; infectious disease; prophylactic;
                     autoimmune
                                                                                                                                                                                                                                                                                                                                                                                                                         Score 48; DB
s; Pred. No. 0.1
0; Mismatches
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                   disease;
                                                                                                                                                                                                                                                                                                                                                                                                                                            DB 18;
0.14;
hsp65; vaccine;
ase; prophylactic;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Length 15;
                                                                                                                                                                                                                                                                                                                                                                                                                           Indels

    useful

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infectious

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Best Local S
Matches 7
                                                                                                                                                                                                                                                                             ILT 10
                                                                                                                                                                                                                                                                                                                                                                                                                                This peptide is one of a library (see AAW43451-W43556) which represents the mycobacterial heat shock protein, hsp65 and is designed to study a novel method for the treatment of autoimmune disease e.g. rheumatoid arthritis. This fragment has been allocated as a group 1 peptide which is composed of the fragments found in AAW43451 to AAW43460. Mycobacterial hsp65 is known to be an immunodominant antigen in a number of infectious diseases and is linked to pristane induced arthritis (PIA) in vitro, however heat shock proteins and peptides derived from microbial sources may act as self antigens and thus have limited clinical use. The human hsp65 homologue, hsp58, or fragments of the hsp58 protein (see AAW14948-W14950) may be useful in the development of vaccines for prophylaxis or treatment of an autoimmune disease such as rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                WPI;
           JP07069915-A.
                                                         Modified-site
                                                                                           Modified-site
                                                                                                       Key
                                                                                                                               Synthetic
                                                                                                                                                      antiviral;
                                                                                                                                                                             Bovine lactoferrin (24-39)
                                                                                                                                                                                                     01-MAR-1996
                                                                                                                                                                                                                             AAR87908;
                                                                                                                                                                                                                                                    AAR87908 standard; peptide;
                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Disclosure; Fig la; 91pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Polypeptide(s) derived from microbial heat shock protein - for treatment of autoimmune disease esp. arthritis
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Elson
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (PEPT-) PEPTIDE THERAPEUTIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      27-SEP-1995;
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                                                                                                                                                       lactoferrin
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                                                                                                                                                                                                                                                                                                                                                           44.8%; Sillarity 100.0%; Conservative 0;
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                                                                                /note=
                                                                                                       Location/Qualifiers
                                              /note-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       arthritis;
                                "optionally this site may be or followed by a peptide"
                                                                   "optionally this site is acetylated preceded by a peptide"
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               LTD
                                                                                                                                                                                                                                                     16
                                                                                                                                                                                                                                                                                                                                                                       Score 39;
Pred. No.
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                                                                                                                                                                                                                                                                                                                                                             Mismatches
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5.4;
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RESULT 11
AAW10516
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Best Local
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                              The present peptide is a lactoferrin (LF) derived antibacterial peptide, which can be used as an immunogen in the prepn. of a monoclonal antibody (MAb), capable of binding with a human or bovine LF fragment but not with natural LF, using standard hybridoma techniques. The MAb can be used for the highly sensitive and specific detection or determination of LF derived antibacterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The sequence is one of six peptides disclosed as having inhibitory effect against viral infection. The peptides are derived from lactoferrin. Their activity is demonstrated against cytomegalovirus
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Claim 4;
                                                                                                               Claim 3; Page 12; 13pp;
                                                                                                                                     antibacterial peptide in e.g. gastric
                                                                                                                                      Monoclonal antibody combined with bovine or non-natural human lactoferrin fragment - for detecting lactoferrin-originated antibacterial peptide in e.g. gastric juice, urine etc
                                                                                                                                                                                     WPI;
                                                                                                                                                                                                                                                                                                                              Synthetic
                                                                                                                                                                                                                                                                                                                                                    determination;
                                                                                                                                                                                                                                                                                                                                                                 Lactoferrin; antibacterial; immunogen; monoclonal; antibody;
human; bovine; hybridoma; sensitive; specific; detection;
                                                                                                                                                                                                                                                                                                                                                                                                                          02-APR-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                 AAW10516;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                        AAW10516 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Inhibitor against viral peptide having sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               02-SEP-1993;
         urine.
                                                                                                                                                                                                                                    30-MAR-1995;
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                                                                                                                                                                                                                                                                                  15-OCT-1996
                                                                                                                                                                                                                                                                                                        JP08269099-A.
                                                                                                                                                                                                                                                                                                                                                                                                   Lactoferrin
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                    peptides in gastric juice, intestinal contents,
                                                                                                                                                                                                            (MORG ) MORINAGA MILK IND CO LTD
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (SNOW ) SNOW
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                                                                                                                                                                                     1996-515017/51
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                                                                                                                                                                                                                                                                                                                                                                                                   derived antibacterial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            AA;
                                                                                                                                                                                                                                                                                                                                                    gastric juice; intestine; faeces; blood; urine
                                                                                                                                                                                                                                    95JP-0073177
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                                                                                                                                                                                                                                                           95JP-0073177
                                                                                                                                                                                                                                                                                                                                                                                                                                                                      peptide;
                                                                                                                                                                                                                                                                                                                                                                                                                          entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          40.2%;
77.8%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Japanese
                                                                                                                Japanese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     infection and proliferation - from lactoferrin
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Pred.
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27;
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                      faeces, blood
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RESULT 13
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AAR94782
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Best Local S
Matches 7
                                                                                                                                          Matches
                                                                                                                                                    Query Match
Best Local
AAB90858;
                                                                                                                                                                                                            AAR94773-R94878 are overlapping peptides of a library spanning the whole of microbial hsp65 (heat shock protein 65). Eleven antigens were prepared from the library and used to immunise mice, after 10 days the mice received injections of pristane to induce arthritis and the animals examined for incidence of arthritis. A preferred anti-arthritic peptide was found to correspond to residues 21-31 of full length hsp65 (see AAR94772). Peptides contg. this sequence are used in the diagnosis, treatment and prophylaxis (may be used in a vaccine) of autoimmune diseases such as rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sequence
                               AAB90858 standard; Peptide; 12
                                                                                                                                                                                                                                                                                                                                                           Polypeptide derived from bacterial heat shock protein 65 - for in diagnosis, prophylaxis and treatment of auto-immune disease rheumatoid arthritis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            11-NOV-1996
                                                                                                                                                                                                                                                                                                                                   Example 1; Figure 1; 88pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 1996-200888/20
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   27-SEP-1994;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    prophylaxis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peptide from library spanning whole of hsp65
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          AAR94782 standard;
                                                                                                                                                                                                                                                                                                                                                                                                                                                         (PEPT-) PEPTIDE THERAPEUTICS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         27-SEP-1995;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 rheumatoid arthritis; autoimmune disease; treatment; vaccine;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Hsp; heat shock protein; Mycobacterium bovis; microbial; diagnosis;
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                                                                                                       PTITNDG
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                                                                                          PTTTNDG
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                                                                                                                                        6; Conserv
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7; Conser
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                                                                                                                                                                                        16 AA;
                                                                                                                                        Conservative
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          peptide;
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                                                                                                                                                   39.1%;
85.7%;
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77.8%;
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                                                                                                                                        Score 34; DB
Pred. No. 40;
0; Mismatches
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                               A
                                                                                                                                                               Length 16;
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                                                                                                                                         Indels
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RESULT 14
AAW14808
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                                                                                                                                                                                                                                                                Query Match
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10-SEP-1999;
15-OCT-1999;
                                                                                                                                                                                                                                                                                                                    in vivo for the treatment of various disorders. Endogenous therapeutic peptides are not suitable as drug candidates as they require frequent administration due to rapid degradation by peptidases in the body. Modifying and attaching therapeutic peptides to albumin prevents or reduces the action of peptidases to increase length of activity (half life) and specificity as bonding to large molecules decreases intracellular uptake and interference with physiological processes. AAB90829 to AAB92441 represent peptides which can be used in the exemplification of the present invention.
                                         23-MAY-1997
                                                                                                                                                                                                                                                                                                                                                                                                                                                       bonds with amino/hydroxyl/thiol groups on blood components to form a peptidase stabilised therapeutic peptide composed of 3-50 amino acids. (I) are useful for modifying therapeutic peptides e.g. hormones, growth factors and neurotransmitters, to protect them from peptidase activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 The present invention describes a modified therapeutic peptide (I) comprising a therapeutically active amino acid region (III) and a reactive group (II) (e.g. succinimidyl and maleimido groups) attached to a less therapeutically active amino acid region (IV), which covalently
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Modifying and attaching therapeutic peptides to albumin prevents peptidase degradation, useful for increasing length of in vivo activity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Protection; endogenous therapeutic peptide; peptidase; conjugation; blood component; modification; succinimidyl; maleimido group; amino hydroxyl; thiol; hormone; growth factor; neurotransmitter.
          fes oncogene protein residues 674-688
                                                                      AAW14808
                                                                                                  AAW14808 standard; peptide;
                                                                                                                                                                                                                                                                                             Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Disclosure; Page 199; 733pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Bridon
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                                                                                                                                                                                                                                                    Local
                                                                                                                                                                            4 MEHRWGKP
                                                                                                                                                                                                       3 LEKKWGAP 10
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                                                                                                                                                                                                                                   Similarity 4; Conserv
                                                                                                                                                                                                                                                                                               12 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Ezrin AM,
                                                                                                                                                                                                                                    Conservative
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                                         (first entry)
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99US-0153406.
99US-0159783.
                                                                                                                                                                                                                                                 35.6%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Milner
                                                                                                   15
                                                                                                                                                                                                                                   Score 31; DB Pred. No. 93; 2; Mismatches
                                                                                                                                                                                                                                    2,
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                                                                                                   AA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Holmes DL,
                                                                                                                                                                                                                                                 DВ
93;
                                                                                                                                                                                                                                                                22;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thibaudeau
                                                                                                                                                                                                                                                                Length 12;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        SEQ ID
                                                                                                                                                                                                                                    0;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NO:30.
                                                                                                                                                                                                                                    Gaps
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RESULT 15
AAY34136
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   16-APR-1987;
17-AUG-1983;
17-AUG-1984;
17-AUG-1984;
15-FEB-1985;
17-AUG-1984;
18-APR-1991;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           WPI;
                         WO9943696-A1
                                                                Synthetic
                                                                                      Potassium channel; ataxia; arrhythmia; cardiovascular disorder; CNS disorder;
                                                                                                                               Variant human
                                                                                                                                                         30-NOV-1999
                                                                                                                                                                                    AAY34136;
                                                                                                                                                                                                             AAY34136 standard;
                                                                                                                                                                                                                                                                                                                                                                                         Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Disclosure; Page -; 41pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Monoclonal receptors to protein, esp. onco-protein ligands - prepd using a polypeptide corresp. to a portion of the protein aminoacid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Lerner
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  15-FEB-1985;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     US5030565-A
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                                                  HOMO
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nes 6; Conserv
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                                                                                                                                                                                                                                                                                                        KWGAPTITNDG 16
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                                                                                                                                                        (first entry)
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                                                                                                                            potassium channel pore domain peptide sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    85US-0701954.
84WO-US01304.
91US-0687710.
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84US-0001304
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                                                                                                                                                                                                            peptide; 15
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54.5%;
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Pred. No.
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. 1.2e+02;
. 7s 5;
                                                                                      epilepsy; Bartter's syndrome;
renal disorder.
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Search completed: October Job time : 26 secs

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                                                                                                                                                         Matches
                                                                                                                                                                                                                                    Query Match
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25-FEB-1998;
07-AUG-1998;
                                                                                                                                                                                                                                                                                                                                                                                      disorders. Nucleotides encoding K+Hnov proteins may be used for identifying homologous or related proteins and the DNA sequences encoding them. They may be used to produce compositions that modulate the expression and function of the K+Hnov protein and in studying the blochemical pathways associated with it. They may also be used for the recombinant production of K+Hnov protein in fermentation cultures. Additionally, such nucleotides may be used in gene therapy protocols for the treatment of diseases associated with abnormal potassium channels.
                                                                                                                                                                                                                                                                                                                   Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Example 1; Page 32; 112pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     New nucleic acids encoding mammalian K+Hnov potassium channel proteins, useful for the diagnosis and treatment of episodic ataxia with myokymia, cardiac arrhythmia, epilepsy and Bartter's syndrome
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Curran ME,
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WGVVTVTTIG
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5; Conserv
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                                                                                                                                                                                                                                                                                                                       15 AA;
                                                                                                                                                             Conservative
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98US-0076687.
98US-0095836.
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                                                                                                                                                                                               Score 31;
Pred. No.
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            Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.
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UNO1_PINPS
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ACI_THUAL
UHA3_HUMAL
UNO2_PINPS
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BPP2_BOTIN
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LIGA_TRAVE
PSBP_IYPA
PSBP3_PIYPA
DIGA_TRAVE
PSBP3_PIYPA
LIGA_TRAVE
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LIGA_TRAVE
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DR STANDARD: P 1986 (Rel. 01, Created) 1986 (Rel. 01, Last sequence 2001 (Rel. 40, Last anno- ropin alpha (Alpha-MSH). dromedarius (Dromedary) aballus (Horse). ta; Metazoa; Chordata; C ta; Metazoa; Chordata; C ta; Eutheria; Cetartiodac xID=9838, 9796; E. C. dromedarius; -75146434; PubMed=112517, Danho W.O., Chung D., ion, Characterization, a ropins from camel pituit istry 14:947-952(1975).	arity onser	tuitary; 2270473; P: 1., Lancian n of a nov from the i 13:1261-12 ARITY; BEL Amidation.	NOCA NOCA STANDARD; PRT; 13 AA P41589; 01-NOV-1995 (Rel. 32, Created) 01-NOV-1995 (Rel. 32, Last sequence update) 16-OCT-2001 (Rel. 40, Last annotation update) Melanotropin alpha (Alpha-MSH). Melanotropin alpha (Alpha-MSH). Anolis carolinensis (Green anole) (American Eukaryota; Metazoa; Chordata; Craniata; Veri Lepidosauria; Squamata; Iguanidae; NCBI_TaxID-28377;	1100.5555555555555555555555555555555555
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PRT; 13 AA. uence update otation update (Arabian camel), and Craniata; Vertebrata; Eut Ctyla; Tylopoda; Camelida ctyla; Tylopoda; Tyl	DB 1; Length 13 4.le+02; hes 1; Indels	kelow L., he major if the rep	chameleon rebrata; E	
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SEQUENCE.
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"Genetic analysis of needle proteins in maritime pine.
dominant and codominant protein markers assayed on dipl
a haploid-based genetic map.";
Silvae Genetica 46:161-165(1997).
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P81106;
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Electrophor
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Eukaryota; Viridiplantae; Streptophyta; Emb
Spermatophyta; Coniferopsida; Coniferales;
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PIR;
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"The isolation and structure of alpha-melanocyte-stimulating from horse pituitaries.";
J. Am. Chem. Soc. 82:4568-4572(1960).
 LCK_DROME
                                                                                                                                                                                                   MEDLINE=99274088; PubMed=10344291; Costa P., Pionneau C., Bauw G., Du Frigerio J.-M., Plomion C.;
                                                                                                                                                                                                                                                                                                                                                                                  Unknown protein
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Dixon J.S., Li
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15-JUL-1998 (Rel.
15-JUL-1999 (Rel.
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01-NOV-1990 (Rel. 16, Last sequence update)
01-NOV-1990 (Rel. 16, Last annotation update)
01-NOV-1990 (Rel. 16, Last annotation update)
Angiotensin-converting enzyme inhibitor.
Thunnus albacares (Yellowfin tuna) (Neothunnus macropterus).
Thunnus albacares (Yellowfin tuna) (Neothunnus macropterus).
Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Actinopterygii; Neopterygii; Teleostei; Euteleostei; Neoteleostei;
Acanthomorpha; Acanthopterygii; Percomorpha; Perciformes; Scombroi
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MOD_RES 1
SEQUENCE 15
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30-MAY-2000
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                       NCBI_TaxID=8236;
                                                    Scombridae;
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"Isolation and characterization of a leuco Drosophila melanogaster.";
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Bukaryota; Metazoa; Arthropoda; Encaheata; Hexapoda; Insecta; Eukaryota; Neoptera; Endopterygota; Diptera; Brachycera; Musc Ephydroidea; Drosophilidae; Drosophila.
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6: sp_mammal:*
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8: sp_organel:
9: sp_phage:*
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O70580;
O1-AUG-1998 (TrEMBLrel. 07, Created)
O1-AUG-1998 (TrEMBLrel. 07, Last sequence update)
O1-DEC-2001 (TrEMBLrel. 19, Last annotation update)
CARBONIC ANYDRASE III (FRAGMENT).
Q38427 PRELIMINARY;
Q38427;
01-NOV-1996 (TrEMBLrel. 01,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Sowden J., Smith H., Morrison K., Edwards Y.;
"Sequence comparisons and functional studies
of the carbonic anhydrase 3 (CA3) gene.";
Gene 214:157-165(1999).
EMBL; AJ006474; CAA07057.1; -.
MGD; MGI:1351477; Cars.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          CAR3 OR CARS OR CA3.
Mus musculus (Mouse).
Eukaryota, Metazoa; Chordata;
Mammalia; Eutheria; Rodentia;
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Q1-MAY-2000
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Q45530;
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01-NOV-1996 (TYEMBLrel. 01, Last sequence update)
01-MAY-2000 (TYEMBLrel. 13, Last annotation update)
CHLORAMPHENICOL ACETYLTRANSFERASE (EC 2.3.1.28) (FR
                                                                                                                                                                                                                                           "Mutations that affect the translation efficiency gene in Bacillus subtilis.";

Proc. Natl. Acad. Sci. U.S.A. 82:173-177(1985)

- 1- FUNCTION: THIS ENZYME IS AN EFFECTOR OF CH
                                                                                                                                                                                                                                                                                   STRAIN=W168; TRANSPOSON=TN9;
MEDLINE=85113144; PubMed=2982142;
Lin C.K., Goldfarb D.S., Doi R.H., Rodriguez R.L.;
                                                                                                                                                                                                                                                                                                                                    Bacillus subtilis.
Bacteria; Firmicutes; Bacillus/Clostridium
Bacillus/Staphylococcus group; Bacillus.
NCBI_TaxID=1423;
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Viruses; dsDNA viruses,
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NCBI_TaxID=10665;
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EMBL; X01414; CAA2567.1;
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                      PRT;
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01-AUG-1998 (TrEMBLrel. 07, Cr
01-AUG-1998 (TrEMBLrel. 07, La:
01-DEC-2001 (TrEMBLrel. 19, La:
CARBONIC ANHYDRASE (FRAGMENT).
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Homo sapiens (Human).
Homo sapiens (Human).
'Arvota; Metazoa; Chordata;
'Arvota; Primates;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Baba S., Takahashi T., Kasama T., Shirasawa H., Baba S., Takahashi T., Kasama T., Shirasawa H., "Identification of two novel amyloid A protein an individual patient of AA-amyloidosis."; Biochim. Biophys. Acta 1180:195-200(1992). InterPro; IPR000096; Serum_amyloid_A.
                                                   Escherichia coli.
Bacteria; Proteobacteria;
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01-JUN-2001 (TrEMBLrel. 17, Last annotation updat
SERUM AMYLOID A ISOTYPE 2 ALPHA PROTEIN (FRAGMENT
HOMO sapiens (Human)
              NCBI_TaxID=562
                                     Escherichia
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Mammalia; Eutheria; Primates; Catarrhini;
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AA; 1612 MW;
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50.0%;
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Pred. No. 1.7e
2; Mismatches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          PRT;
                                                       subdivision;
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No.
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No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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  length:
length:
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1: /cgn2_6/ptodata/1/

2: /cgn2_6/ptodata/1/

3: /cgn2_6/ptodata/1/
4: /cgn2_6/ptodata/1/
5: /cgn2_6/ptodata/1/
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 VVLEKKWGAPTITNDG
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/cgn2_6/ptodata/1/iaa/5B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6A_COMB.pep:*
/cgn2_6/ptodata/1/iaa/6B_COMB.pep:*
/cgn2_6/ptodata/1/iaa/BCTUS_COMB.pep:*
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US-08-622-999A-228
US-08-622-999A-228
US-08-6897-590-72
US-08-4687-597-158
US-08-456-597-158
US-08-456-597-158
US-08-456-597-158
US-08-621-803-337
US-08-621-803-337
US-08-621-259A-239
US-08-621-259A-239
US-08-621-259A-239
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US-08-621-259A-239
US-08-621-259A-239
US-08-621-259A-239
US-08-256-284-14
US-09-217-352-237
US-08-556-597-145
US-08-256-597-145
US-08-256-597-136
US-08-293-284A-23
5248606-34
US-07-778-233B-36
US-08-290-641-36
US-08-290-641-36
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(without alignments)
37.220 Million cell updates/sec
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         23, Appl
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243, App
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US-08-687-590-67
                                           US-08-687-590-67
Query Match
Best Local Similarity
Matches 6; Conserv
                                                     TOPOLOGY: 1 MOLECULE TYPE:
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29	6
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28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	28.7	29.9	29.9	29.9	60.0
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Sequence 9	Sequence 1	Sequence 1:	Sequence 19	Sequence 19,	Sequence 1:	Sequence 19	Sequence 65,	Sequence 1	Sequence 2	Sequence 10	Sequence 1:	Sequence 6	Sequence 6,	Sequence 1	Sequence 1	Sequence 21	actuance to
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ALIGNMENTS

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Sequence 67, Application US/08687590 Patent No. 6255070
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APPLICATION NUMBER: GB 9401791.0
FILING DATE: 31-JAN-1994
PRIOR APPLICATION DATA:
APPLICATION NUMBER: GB 9418234.2
FILING DATE: 09-SEP-1994
ATTORNEY/AGENT INFORMATION:
NAME: BASTIAN, KEVIN L.
                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER: 0
INFORMATION FOR SEQ ID NO: 67:
SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY: United States of America
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Ashworth, Alan
TITLE OF INVENTION: Folding Proteins
NUMBER OF SEQUENCES: 74
CORRESPONDENCE ADDRESS:
ADDRESSEE: Townsend and Townsend and Crew LLP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: PCT/GB95/00192
FILING DATE: 31-JAN-1995
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICANT: Willison, Keith Robert
APPLICANT: Kubota, Hiroshi
APPLICANT: Ashworth, Alan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            APPLICATION NUMBER: US/08/687,590 FILING DATE: 31-JUL-1996 CLASSIFICATION: 435
                                                                                                                                                     LENGTH: 10 amino acids
TYPE: amino acid
STRANDEDNESS: single
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CITY: San Francisco
STATE: California
                                                                                                                                                                                                                                                                                       NAME: Bastian, Kevin L. REGISTRATION NUMBER: 34,774
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linear
36.8%; Score 32; DB ilarity 100.0%; Pred. No. 16 Conservative 0; Mismatches
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                    DB 4;
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                                            Length 10;
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US-08-602-999A-228
; Sequence 228, Application US/08602999A
; Patent No. 6184205
; GENERAL INFORMATION:
; APPLICANT: SPARKS, Andrew B.
; APPLICANT: KAY, Brian K.
; APPLICANT: THORN, Judith M.
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US-08-584-043A-80
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ATTORNEY/AGENT INFORMATION:
NAME: Warburg, Richard J.
REGISTRATION NUMBER: 32,327
REFERENCE/DOCKET NUMBER: 217/189
TELECOMMUNICATION INFORMATION:
TELEPHONE: (213) 489-1600
TELEFAX: (213) 955-0440
TELEFAX: (213) 955-0440
TELEX: 67-3510
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OPERATING SYSTEM: IBM P.C.
SOFTWARE: Word Perfect 6.1
CURRENT APPLICATION DATA:
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APPLICANT: Sparrow, James
APPLICANT: Hauer, Jochen
APPLICANT: Mins, Martha P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           FILING DATE: January CLASSIFICATION: 435 PRIOR APPLICATION DATA: APPLICATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 COMPUTER READABLE FORM:
MEDIUM TYPE: 3.5° Diskette, 1.44 Mb
MEDIUM TYPE: storage
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STREET: 633 West Fifth Street
STREET: Suite 4700
CITY: Los Angeles
STATE: California
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Hauer, Jochen
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. 51;
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                                                                                                                                                                                                                                                                                                                                                                                                   US-08-030-410-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Query Match
Best Local Similarity bv...
"---hes 4; Conservative
                                                                                                                                                                                                                                                                                                                                             Patent No. 6221359
GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-9741/8864
TELEX: 65141 PENNIE
TELEX: 65141 PENNIE
INFORMATION FOR SEQ ID NO: 228:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
APPLICANT:
 ZIP: 11530
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
COMPUTER: IBM PC com
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: Misrock, S. Leslie
REGISTRATION NUMBER: 18,872
REFERENCE/DOCKET NUMBER: 11
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                              APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
                                                                                                                                                       CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   SEQUENCE CHARACTERISTICS:
LENGTH: 16 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SOFTWARE: Patentin Relacional APPLICATION DATA:
APPLICATION NUMBER: US,
FILING DATE: 16-FEB-199
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  NUMBER OF SEQUENCES: 4
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: RIDER, James E.
TITLE OF INVENTION: SH3 BINDING PEPTIDES AND METHODS OF
TITLE OF INVENTION: ISOLATING AND USING SAME
                                                                                                                                                                          NUMBER OF SEQUENCES:
                                                                                                                                                                                          APPLICANT: Kojima, Katsuaki
TITLE OF INVENTION: HEMOPOI
                                                                                                                                                                                                                            APPLICANT:
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                                                                                                                                                                                                                                                                              APPLICANT:
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                                                                                     CITY: Garden City
STATE: New York
                                                                                                                     STREET:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COUNTRY: U.S.A. ZIP: 10036-2711
                                                                   COUNTRY:
                                                                                                                                       ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    ADDRESSEE:
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                                                                                                                                                                                                                                                                                                                                                                   Application US/08030410 6221359
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                                                                                                                     E: Scully, Scott, Murphy & Presser
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                                                                   United States
                                                                                                                                                                                                                            Sudo, Tetsuo
Sano, Emiko
                                                                                                                                                                                                                                                            Tanaka, Ryuhei
Kawano, Genji
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Nakahata, Tatsutoshi
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: Floppy disk
IBM PC compatible
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                                                                                                                                                                                                                                                                                               Tetsuo
                                                                                                                                                                                        HEMOPOIETIC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    34.5%;
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                                                                                                                                                                                          STEM CELL MULTIPLIER
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GenCore version 5.1.3 Copyright (c) 1993 - 2002 Compugen Ltd.
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OM protein - protein search, using sw model

Run on: October 17, 2002, 17:26:02; Search time 10.6667 Seconds (without alignments), 144.134 Million cell updates/sec

Title:
Perfect score:
Sequence: US-09-847-637B-3 87 1 VYLEKKWGAPTITNDG 16

Scoring table:

BLOSUM62 Gapop 10.0 , Gapext 0.5

Searched: 283138 seqs, 96089334 residues

l number of hits satisfying chosen parameters:

283138

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0% Maximum Match 100% Listing first 45 summaries

PIR_71:*
1: pir1:*
2: pir2:*
3: pir3:*
4: pir4:*

Database :

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

29	28	27	26	25	24		22		. 20	19	18	17	16	15	14	13	12	11	10	9	8	7	6	5	4	w	N	1		Result
65	66	66	66	66	66	66	67	83	83	83	83	68	83	68	68	68	83	71	72	72	72	. 77	87	87	87	87	87	87		2075
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541	550	548	546	544	541	528	543	544	544	544	544	543	543	542	542	539	538	541	541	540	540	538	588	541	541	540	540	540	10.9	
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S68249	A41468	G75499	S34938	AG2263	T06829	S73270	S70013	B83720	JC6063	B41884	JC5130	F97232	B41872	AD1333	AC1704	в49855	JQ1195	S72614	T35591	В41325	S37566	H72367	A25902	T44725	S40245	C41325	A43509	A26950		;
peronin grob	eat shock p	i prote			Ω	60K	chaperonin-like pr	class I heat-shock	chaperonin groEL -	58K heat shock pro		chaperonin GroEL,	heat shock protein	н	class I heat-shock	heat shock protein	heat shock protein	chaperonin 60 - Th	eronin	ᠴ	l protein -	ij	: :	eronin	shock	t shock p	ς+	groEL2 protein - M	1000 H F C + C C +	7))

45	44	43	42	41	40	39	38	37	36	35 5	34	3 3	32	31	30
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72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	72.4	73.6	73.6	73.6	73.6	74.7	74.7
548	548	548	547	547	547	547	544	540	540	542	542	542	539	546	544
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B86110	D91269	BVECGL	в83098	B49203	B43606	JC4519	B82048	198086	G95222	B86674	S32106	JN0661	S22342	B47073	BVYCGL
hypothetical prote	. chaperonin GroEL [chaperonin groEL -	GroEL protein PA43	heat shock protein		heat-shock protein	chaperonin, 60 Kd	chaperonin GroEL [chaperonin, 60 kDa	60 KD chaperonin [groEL protein - La	heat shock protein	chaperonin HSP60 -	chaperonin GroEL -	chaperonin groEL -

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RESULT 5
T44725
chaperonin 6CK [imported] - Mycobacterium le N;Alternate Tames: heat shock protein GroEL-
                                                                                                                                                                                                                                                                                                                  C;Species: Mycobacterium paratuberculosis
c: 06-Jan-1995 #sequence_revision 06-Jan-1
c: ession: S40245
R;Selston, X:Y.Z.; McConnell, X:Y.Z.; Bujdoso,
submitted to the EMBL Data Library, August 1993
A;Description: Cloning and expression of Mycoba
A;Reference number: S40245
A;Accession: S40245
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S40245
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                                                                                                                                Q
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C; Superfamily: chaperonin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     R;Mazodier, P.; Guglielmi, G.; Davies, J.; Thompson, J. Bacteriol. 173, 7382-7386, 1991
A;Title: Characterization of the groEL-like genes in A;Reference number: A41325; MUID:92041639
A;Accession: C41325
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     heat shock protein 56 - Streptomyces albus
N.Alternate names: heat shock protein groEL homolog 2
N.Cies: Streptomyces albus
C.E: 17-Jul-1992 #sequence_revision 17-Jul-1992 #text_change
C.Accession: C41325
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A; Residues: 1-541 <COL>
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A; Residues: 1-540 <MAZ>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A;Status: preliminary
A;Molecule type: DNA
A;Residues: 1-540 <THO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                     heat shock protein 65 - Mycobacterium paratuberculosis
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                                                                                                                                                                                                                                                                                                    Status: preliminary
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Best Local Similarity
                                                                                                                                                                     Matches
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Best Local
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                                                                                                     37 VVLEKKWGAPTITNDG
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        NID:g153293;
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                                                                                                                                                                                   Score 87; DB 2; Pred. No. 1.4e-06;
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Pred. No. 1.4e-06;
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Pred. No. 1.4e-06
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RESULT 6
A25902
                                  A; Gene: TM0506
C; Superfamily:
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A; Residues: 1-538 <ARN>
A; Cross-references: GB:
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A; Residues: 1-588 <MEH>
C; Superfamily: chaperonin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      C;Species: Mycobacterium leprae
C;Date: 02-Jun-1988 #sequence_revision 02-Jun-1988
C;Accession: A25902
R;Mehra, V.; Sweetser, D.; Young, R.A.
Proc. Natl. Acad. Sci. U.S.A. 83, 7013-7017, 1986
A;Title: Efficient mapping of protein antigenic de
A;Reference number: A25902; MUID:86313701
A;Accession: A25902
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C;Superfamily: chaperonin groEL
C;Keywords: molecular chaperone
                                                                                                                                                                            A;Reference number: A72200; MUID:99287316
A;Accession: H72367
                                                                                                                                                                                                                                Nature 399, 323-329, 1999
                                                                                                                                                                                                                                                                 Garrett, M.M.; Stewart, A.M.; Cotton,
                                                                                                                                                                                                                                                                                                    C;Date: 11-Jun-1999 #sequence_revision 11-Jun-1999 #text_change 21-Jul-2000
C;Accession: H72367
                                                                                                                                                                                                                                                                                                                                     groEL protein - Thermotoga maritima (strain MSB8)
C; Species: Thermotoga maritima
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A; Residues: 1-541 <JAM>
A; Cross-references: EMB
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             A; Reference number: Z22831
A; Accession: T44725
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C; Accession: T44725
R; James, K.D.; Park
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              C;Species: Mycobacterium leprae
C;Date: 21-Jan-2000 #sequence_revision 21-Jan-2000 #text_change 18-Feb-2000
                                                                                        A; Experimental
                                                                                                                                                            A;Status: preliminary
                                                                                                                                                                                                              A; Title: Evidence for lateral gene transfer between Archaea and
                                                                                                                                                                                                                                                                                  R; Nelson, K.E.; Clayton, R.A.; Gill, S.R.; Gwinn, M.L.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  65K antigen -
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        A; Status: preliminary; translated from GB/EMBL/DDBJ
                                                                       Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                  1 VVLEKKWGAPTITNDG 16
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ce: strain MSB8
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                                                                                                                                                                                                                                                                   M.D.; Pratt,
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                                                                                                                                                                                                                                                                   M.L.; Dodson, R.J.; Haft, M.S.; Phillips, C.A.; Ric
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Length 538;
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1 VVLEKKWGAPTITND
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P45746
P28598
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P42384
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5 bacillus ps
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ID CH62_STRLI
ID CH62_STRLI
AC 033658;
DT 16-OCT-2001
CC BACTERIA; F
OC ACTIONNCE FR
RC STRAIN-TK21
RX MEDLINE-980
RA MEDLINE-980
RC CONDITION
CC -1-FUNCTION
CC -1-FUNCTION
CC -1-FUNCTION
CC -1-SIMILAR
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KW Chaperone;
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Matches 16
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Mellado R.P.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NCBI_TaxID=1916;
                          36
                                                                         1 VVLEKKWGAPTITNDG
                       VVLEKKWGAPTITNDG
                                                                                                                                                              Similarity
                                                                                                                                   Conservative
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63 72.4 539 1 CHO_ENTT 63 72.4 539 1 CHO_ENTA 63 72.4 540 1 CHO_ENTAE 63 72.4 540 1 CHO_ENTAE 63 72.4 540 1 CHO_ERWAP 63 72.4 540 1 CHO_KLEON 63 72.4 540 1 CHO_KLEON
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1 CH60_ENTIT 1 CH60_SERRU 1 CH60_ENTAE 1 CH60_ENTGE 1 CH60_ERWAP 1 CH60_KLEON 1 CH60_KLEOX 1 CH60_KLEOX 1 CH60_SERFI 1 CH60_SERFI 1 CH60_SERMA
CH60_ENTIT CCH60_ENTAE CH60_ENTAE CH60_ENAAP CH60_ERWAAP CH60_KLEON CH60_KLEOX CH60_KLEOX CH60_KLEPL CH60_SERFI CH60_SERFI CH60_SERWAA

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R EMBL; X95971; CAA65226.1; -.

R HSSP; P45746; 1SRV.

R INTETPO; IPR001844; Chaperonins_cpn60.

R InterPro; IPR002423; TCP1_cpn60.

R Pfam; PF00118; cpn60_TCP1; 1.

R PFINTS; PR00298; CHAPERONIM60.

R PRINTS; PR00304; TCOMPLEXTCP1.

R PROSITE; PS00296; CHAPERONINS_CPN60; 1.

R PROSITE; PS00304; TCOMPLEXTED FOR CRESSION 
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              This SWISS-PROT entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation the European Bioinformatics Institute. There are no restrictions on its use by non-profit institutions as long as its content is in no way modified and this statement is not removed. Usage by and for commercial entitles requires a license agreement (See http://www.isb-sib.ch/announce/or send an email to license@isb-sib.ch).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              "Streptomyces 11vidans groES, groEL1 and groEL2 genes.";
Microbiology 143:3563-3571(1997).

-I- FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REPOLDING
PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED UNDER
CONDITIONS (BY SIMILARITY).

-I- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO STACKED
7 SUBUNITS (BY SIMILARITY).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Streptomyces lividans.
Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-OCT-2001 (Rel. 40, Created)
16-OCT-2001 (Rel. 40, Last sequence up
16-OCT-2001 (Rel. 40, Last annotation
60 kDa chaperonin 2 (Protein Cpn60 2)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  MEDLINE-98048481; PubMed-9387235;
de Leon P., Marco S., Isiegas C., Marina A.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Actinomycetales; Streptomycineae; Streptomycetaceae; Streptomyces
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   7 SUBUNITS (BY SIMILARITY).
SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) FAMILY.
                                                   .08;
0;
                                                   Score 87;
Pred. No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    PRT;
     Mismatches
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(GroEL2 protein).
                                                         3.3e-06;
                                                                                                       DB 1;
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                                                                                                 Length 476;
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STRESS
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CH62_MYCTU
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MEDLINE-98295987; PubMed-9634230; Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Cole S.T., Brosch R., Parkhill J., Garnier T., Churcher C., Harris Gordon S.V., Eiglmeier K., Gas S., Barry C.E. III, Tekaia F., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Badcock K., Basham D., Brown D., Chillingworth T., Connor R., Holroyd Hornsby T., Jagels K., Krogh A., McLean J., Moule S., Murphy L., Oliver S., Osborne J., Quail M.A., Rajandream M.A., Rogers J., Rutter S., Seeger K., Skelton S., Squares S., Squares R., Sulston J.E., Taylor K., Whitehead S., Barrell B.G.; "Deciphering the biology of Mycobacterium tuberculosis from the complete genome sequence."; Nature 393:537-544(1998)."
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            01-JAN-1988 (Rel. 06, Created)
01-OCT-1996 (Rel. 34, Last sequence update)
16-OCT-2001 (Rel. 40, Last annotation update)
60 kDa chapperonin 2 (Protein Cpn60-2) (groEL protein 2) (65 kDa antigen) (Heat shock protein 65) (Cell wall protein A) (Antigen A).
GROL2 OR GROEL2 OR GROEL-2 OR HSP65 OR RV0440 OR MT0456 OR MTV037.04.
                                                                                                                                                                       SPECIES=M.bovis, and Ros C., Belak K.;
                                                                                                                                                                                                                                                                                                         SPECIES-M. bovis; STRAIN-BCG;
MEDLINE-87193155; PubMed-3553003;
Thole J.E.R., Keulen W.J., Kolk A.H.J.,
Tiesjema R.H., van Embden J.D.A.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            J. Bacteriol. [2]
                                Telenti A., Jacobs W.R. Jr., Banerjee A., Cole Clarridge J.E., Kreiswirth B.N., Musser J.M.;
                                                                                                   SEQUENCE OF 63-182 FROM N.A. SPECIES=M.bovis, and M.tuber
                                                                                                                                                                                                                                                           64-kilodalton protein of Mycobacterium
Escherichia coli K-12.";
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  SPECIES=M.tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          SPECIES=M.tuberculosis;
                                                                 Kapur V., Li L.L., Hamrick M.R., Plikaytis
                                                                                   MEDLINE=95150784; PubMed=7848059;
                                                                                                                                                       Submitted (MAY-1996) to
                                                                                                                                                                                                           SEQUENCE OF 45-195 FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Delcher A., Utterback T., Weidman
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Peterson
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Shinnick T.M.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Actinomycetales; Corynebacterineae; NCBI_TaxID=1773, 1765;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Mycobacterium bovis.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Mycobacterium tuberculosis,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         P06806;
                                                                                                                                                                                                                                                                                           "Characterization, sequence determination,
                                                                                                                                                                                                                                                                                                                                                                                                                                laboratory strains.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            MEDLINE=87137260;
                                                                                                                                                                                                                                                                                                                                                                                                               Submitted (APR-2001) to the
                                                                                                                                                                                                                                                                                                                                                                                                                                      Whole genome comparison of Mycobacterium tuberculosis clinical and aboratory strains.":
                                                                                                                                                                                                                                                                                                                                                                                EQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              65-kilodalton antigen of Mycobacterium tuberculosis.";
Mycobacterium species assignment and unambiguous figation of mutations associated with antimicrobi
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 n J., DeBoy R.,
J.F., Nelson W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Q48931;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              169:1080-1088(1987).
                                                                                                                                                                                                                                           55:1466-1475(1987)
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                                                                                                   and M.tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              losis; STRAIN=ERDMANN;
PubMed=3029018;
                                                                                                                                                                                       M.tuberculosis;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               nd D., Eisen J.A., Carpenter L., White O., Dodson R., Gwinn M.L., Haft D., Hickey E., C., Umayam L.A., Ermolaeva M.D., Salzberg T., Weidman J., Khouri H., Gill J., Mikula
                                                                                                                                                       the
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  STRAIN=CDC 1551 / Oshkosh;
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                                                                                                                                                       EMBL/GenBank/DDBJ
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                                                                   В.В
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 antimicrobial
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                                                                                                                                                       databases
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                                                ., Shinnick
S., Yuen K.
                                                                                                                                                                                                                                                                                             immunogenicity
                                                                                                                                                                                         AND 12-14001;
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                                                                                                     AND TMC1024;
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                                                 K.Y.,
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Best Local S
Matches 16
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EMBL; M17705; AAA25338.1; -.
EMBL; U55833; AAC44451.1; -.
EMBL; U55832; AAC44458.1; -.
EMBL; U7995; AAB39044.1; -.
EMBL; U7995; AAB39076.1; -.
EMBL; S76635; -, NOT_ANNOTATED_CDS.
PIR; A26950; A26950.
PIR; A43509; A43509.
HSSP, P45746; 1SRV.
TIGR, MT0456; -.
Q00768;
Q1-APR-1993 (Rel. 2
Q1-JUN-1994 (Rel. 2
16-OCT-2001 (Rel. 4
60 kDa chaperonin 2
GROL2 OR GROEL2.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TubercuList; Rv0440; -.
InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00298; CHAPERONIN60.
                                                                                                                                                                                                                                                                                                                                                                                                                                                             Complete INIT_MET
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Chaperone;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00304; TCOMPLEXTCP1.
PROSITE; PS00296; CHAPERONINS_CPN60;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    entities requires a license agreement (S or send an email to license@isb-sib.ch).
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-!- FUNCTION: PREVENTS MISFOLDING AND PROMOTES PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GI
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                SPECIES=M.tuberculosis;
MEDLINE=95214306; PubMed=7699930;
                                                                                                                                           CH62_
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 L; M15467; AAA88232.1; -.
L; AL021932; CAA17397 1; -.
L; AE000648; AAK44679 1; -.
L; M17705; AAA25358.1; -.
L; U55823; AAC44451.1; -.
L; U55823; AAC44451.1; -.
L; U17925; AAB39076.1; -.
L; U17957; AAB39076.1; -.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       s SWISS-PROT entry is copyright. It is produced through ween the Swiss Institute of Bioinformatics and the Encopean Bioinformatics Institute. There are no rest by non-profit institutions as long as its content
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SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED
7 SUBUNITS (BY SIMILARITY).
MISCELLANEOUS: PURIFIED 65 kDa ANTIGEN CAN
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16; Conser
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Q9knr7 vibrio chol	Q93eu6 enterococcu	Q97nv4 streptococc	-	Q9exm5 enterobacte	Q9exm7 enterobacte	Q9f2hl serratia ma	Q9f2h2 serratia ma	Q9ewa8 serratia ma	Q9ewa9 serratia ma	Q9ewb0 serratia ma	Q9etc4 serratia ma	Q9f4e5 buchnera ap	Q9x6y3 bacteroides			Q9kkf0 clostridium	-	Q9rwq9 deinococcus	O31198 leptospira	Q9x2u7 oscillatori		Q9kj23 lactobacill	۲,	0	٠.	Q9ezv4 bacillus st	Q9rc20 bacillus sp	Q9reu4 bifidobacte

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SEQUENCE
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STRAIN-J802;

Martinez-Costa O.H., Zalacain M., Alkema W., Holmes D., Malpart:
Martinez-Costa O.H., Zalacain M., Alkema W., Holmes D., Malpart:
A cold-shock-like gene with pleitropic effects on Streptomyces
antiblotic biosynthesis.";

Submitted (QCT-199) to the EMBL/GenBank/DDBJ databases.

EMBL; AJ250536; CAC19351.1; -.

EMBL; AJ250536; CAC19351.1; -.

HSSP; P06119; IAON.

InterPro; IPR002423; TCP1_cpn60.

Pfam; PF00118; cpn60_TCP1; 1.

PRINTS; PR03304; TCOMPLEXTCP1.
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09EWD1; PRT; 59 AA.

01-MAR-2001 (TrEMBLrel. 16, Created)
01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
01-DEC-2001 (TrEMBLE). 19, Last annotation update)
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Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
Actinomycetales; Streptomycineae; Streptomyces.
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                                               1 VVLEKKWGAPTITNDG
VVLEKKWGAPTITNDG
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16; Conserv
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                                                                                                                                                 Conservative
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OSEUR7;
01-MAR-2001 (TIEMBLITE1. 1
01-MAR-2001 (TIEMBLITE1. 1
01-DEC-2001 (TIEMBLITE1. 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                -!- FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFO
PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED
CONDITIONS (BY SIMILARITY).
-!- SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO ST
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     "A cold-shock-like gene with pleitropic effects on Strep antibiotic biosynthesis.";
Submitted (CCT-1999) to the EMBL/GenBank/DDBJ databases EMBL; AJ250537; CAC19355.1; .

HSSP; P06139; IAON.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00304; TCOMPLEXTCP1.
                                                                                                                                                                                                       InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    01-MAY-1997 (TrEMBLrel. 03, Created)
01-MAY-1997 (TrEMBLrel. 03, Last sequence update)
01-DEC-2001 (TrEMBLrel. 19, Last annotation update)
60 KDA CHAPERONIN (PROTEIN CPN60) (GROEL PROTEIN).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Streptomyces hygroscopicus.
Bacteria; Firmicutes; Actinobacte
Actinomycetales; Streptomycineae;
                                            PRINTS; PR00298: CHAPERONINGO.
PRINTS; PR00304: TCOMPLEXTCP1.
PROSTTE; PS00296: CHAPERONINS_CPN60;
ATP-binding; Chaperone.
                                                                                                                                                                                                                                                                                                                                                EMBL; U90204; AAB49990.1; HSSP; P06139; 1GRL.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Submitted (FEB-1997)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         STRAIN=IMMIB D-1411;
Zimmermann O., Pinkenburg O.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Tsukamurella tyrosinosolvens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          HSP60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ATP-binding; Chaperone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Martinez-Costa O.H.,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      STRAIN-AF 141;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE FROM N.A.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Tsukamurella tyrosinosolvens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ω
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                                                                                                                                                                                                                                                                                                                                                                                                                                7 SUBUNITS (BY SIMILARITY).
SIMILARITY: BELONGS TO THE CHAPERONIN (HSP60) FAMILY
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              VVLEKKWGAPTITNDG 16
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16,
MW;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Koechel H.G.;
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    6335314830C9B662 CRC64;
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2.5e-07;
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Matches 16
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Best Local :
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01-JUN-2001
01-JUN-2001
01-DEC-2001
60 KDA CHAPE
                                                                                                                                                                                                                                                                                                                                                       InterPro; IPR001844; Chaperonins_cpn60.
InterPro; IPR002423; TCP1_cpn60.
Pfam; PF00118; cpn60_TCP1; 1.
PRINTS; PR00298; CHAPERONIN60.
PRINTS; PR00304; TCOMPLEXTCP1.
PROSTIE; PS00296; CHAPERONINS_CPN60; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                               "TSukamurella paurometabola heat shock protein 60 (hsp60) gene.";
Submitted (FEB-2001) to the EMBL/GenBank/DDBJ databases.
-!-FUNCTION: PREVENTS MISFOLDING AND PROMOTES THE REFOLDING AND PROPER ASSEMBLY OF UNFOLDED POLYPEPTIDES GENERATED UNDER STREE CONDITIONS (BY SIMILARITY).
-!-SUBUNIT: OLIGOMER OF 14 SUBUNITS COMPOSED OF TWO STACKED RINGS 7 SUBUNITS (BY SIMILARITY)
                                  SEQUENCE FROM N.A. Nagabhushanam V., "Molecular and imm
                      of Hsp65."
                                                                                                                             60
                                                                                                                                                 01-OCT-2000
01-OCT-2000
                                                                                                                                                                         Q9KGW1;
                                                                                                                                                                                     09KGW1
                                                                                                                                                                                                                                                                                                                                                                                                                                      7 SUBUNITS (BY SIMILARITY)
-!- SIMILARITY: BELONGS TO THE EMBL; AF352578; AAK18614.1; --
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Q9AFA5
           Submitted
                                                                             Actinomycetales;
NCBI_TaxID=1764;
                                                                                                      Bacteria; Firmicutes; Actinobacteria; Actinobacteridae;
                                                                                                                 Mycobacterium avium.
                                                                                                                                       01-DEC-2001
                                                                                                                                                                                                                                                                                                                                     SEQUENCE
                                                                                                                                                                                                                                                                                                                                              ATP-binding;
                                                                                                                                                                                                                                                                                                                                                                                                                             HSSP; P06139;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Zimmermann
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SEQUENCE FROM N.A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=2061;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Actinomycetales; Corynebacterineae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Bacteria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Tsukamurella paurometabola.
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                                                                                                                          -OCT-2000 (TrEMBLrel. 15, Created)
-OCT-2000 (TrEMBLrel. 15, Last sequence update)
-DEC-2001 (TrEMBLrel. 19, Last annotation update)
KDA CHAPERONIN (PROTEIN CPN60) (GROEL PROTEIN)
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etales; Corynebacterineae; Tsukamurellaceae; T
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nilarity 100.0%;
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PREVENTS MISFOLDING
                                 V., Praszkier J., Cheers C.;
immunological characterization
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                                                                                          Corynebacterineae;
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GenCore version 5.1.3 Copyright (c) 1993 - 2002 Compugen Ltd.

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RESULT 1
AAY93330
  Peptide having a defined sequence is used in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis -
Claim 3; Page 7; 58pp; English.
                                                                 WPI; 2000-376486/32.
                                                                                                                                                      04-NOV-1999;
                                                                                                                                                                                                 WO200027870-A1.
                                                                                                                                                                                                                     Mycobacterium tuberculosis.
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                                                                                    Naparstek Y, Ulmansky R,
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                                                                                                           (HADA-) HADASIT MEDICAL RES SERVICES & DEV
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                                                                                                                                             The present sequence represents an epitope of the heat shock protein 60 (Hsp60) of Mycobacterium tuberculosis. The peptide, and the nucleic acid encoding it, are useful in vaccines for conferring immunity against autoimmune disease or inflammatory disorders, especially arthritis. The peptide may also be used to raise antibodies, which are then used for passive immunisation.
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                                                                                                                                                                                                                                               Peptide having a defined sequence immunity against autoimmune diseas especially arthritis -
                                                                                                                         Sequence
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Visser
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29-AUG-1996;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Mycobacterium vaccae; antigen; therapy; prevention; cytokine M. avium; M. tuberculosis; immune response enhancer; cell pro
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       represents a Mycobacterium vaccae antigen GV-27A. The invention
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Mycobacterium vaccae protein; antigen; T cell activation; cytokine;

sequence of M. vaccae antigen GV-27A.

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US-08-997-362-117
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US-09-95-855-117
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US-08-997-362-114
US-09-095-855-114
US-09-095-855-114
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                                                Matches
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                                                                         Best
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APPLICANT: TAN, PAUL L.J.
TITLE OF INVENTION: METHODS
NUMBER OF SEQUENCES: 194
                                                                         Local
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PCT-US94-06362-2 US-08-467-822-32 US-08-432-697-32 US-08-466-248-32 US-08-467-822-35 US-08-467-822-35 US-08-467-822-35 US-08-467-722-1 US-08-336-251-1 US-08-981-787-1 US-08-981-787-1 US-08-981-787-1 US-08-981-787-3	4	Ŋ	G	v	ω	N	v	4	4	4	4	2	4	4	Δ	N	U
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	App	App	App 1.1	Appli	App11	App11	Appli	Appli	Appli	Appl	App1	Appl	App1	Appl	App11	Appl	Tddv

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; MOLECULE TYPE: protein US-08-997-080-117
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                                                                                                                                                                                                                                     ATTORNEY/AGENT INFORMATION:
NAME: Sleath, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 1100
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-269-0565
                                                                                                                                                                                                                                                                                                                                                                                                                                        COMPUTER: IBM Compatible
OPERATING SYSTEM: DOS
SOFTMARE: FastSEBO for Windows Version
CURRENT APPLICATION DATA:
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CLASSIFICATION:
PRIOR APPLICATION DATA:
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MEDIUM TYPE: Diskett
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ADDRESSEE: Law Offices of Ann
STREET: 2601 Elliott Avenue,
                                                                                                 LENGTH: 215 amino acids
TYPE: amino acid
STRANDEDNESS: single
TOPOLOGY: linear
                                                                                                                                                                                                         TELEPHONE: 200 200 TELEPHONE: 206-269-0563
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                 Score 87;
Pred. No.
Mismatches
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Suite 4185
               2e-07;
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VVLEKKWGAPTITNDG

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RESULT 3
US-09-095-855-117
US-09-095-855-117; Application US/09095855; Patent.No. 6160093; Patent.No. 6160093; GENERAL INFORMATION:
APPLICANT: Tan, Paul
APPLICANT: Visser, Elizabeth
APPLICANT: Skinner, Margot
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US-08-997-362-117
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APPLICANT: Hiyama, Jun
APPLICANT: Visser, Elizabeth
APPLICANT: Skinner, Margot
APPLICANT: Scott, Linda
APPLICANT: Prestidge, Ross
TITLE OF INVENTION: COMPOUNDS AI
TITLE OF INVENTION: TREATMENT AI
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APPLICATION NUMBER: U.S. Patent Application No. FILING DATE: August 29, 1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           OPERATING SYSTEM: DOS
SOFTWARE: FastSEQ for Windows Version
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/997,362
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MEDIUM TYPE: Diskette
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PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS:
LENGTH: 215 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                   FORMATION FOR SEQ ID NO:
                                                                                                                                                                                                                                                     Local Similarity
nes 16; Conserv
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TELEFAX: 206-269-0563
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                                                                                                                                                                                                                                                                                                                                                                             STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     NAME: Sleath, Janet REGISTRATION NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FILING DATE:
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                                                                                                                                                                                               1 VVLEKKWGAPTITNDG 16
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2601 Elliott Avenue, Suite 4185
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                                                                                                                                                                                                                                               2e-07;
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; LENGTH: 215 amino
; TYPE: amino acid
; STRANDEDNESS: sing
; TOPOLOGY: linear
; MOLECULE TYPE: prote
US-09-095-855-117
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                                                                                                                                                                                                    GENERAL INFORMATION:
APPLICANT: Watson, James D.
APPLICANT: Tan, Paul L.J.
APPLICANT: Prestidge, Ross
NUMBER OF SEQ ID NOS: 194
SOFTWARE: FastSEQ for Windows Version 3.0
SEQ ID NO 117
LENGTH: 215
                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Matches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Query Match
Best Local Similarity
                                                                       TITLE OF INVENTION: Methods and Compounds for the Treatment TITLE OF INVENTION: of Immunologically-Mediated Skin Disords File Reference: 11000.1007c1 CURRENT APPLICATION NUMBER: US/09/324,542 CURRENT FILING DATE: 1999-06-02 EARLIER APPLICATION NUMBER: US 08/997,080 EARLIER FILING DATE: 1997-12-23
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         PRIOR APPLICATION DATA:
APPLICATION NUMBER: 08/705,34
FILING DATE: 29-AUG-1996
APPLICATION NUMBER: 08/873,97
FILING DATE: 12-JUN-1997
APPLICATION NUMBER: 08/997,36
FILING DATE: 23-DEC-1997
ATTORNEY/AGENT INFORMATION:
NAME: Sleath, Janet
REGISTRATION NUMBER: 37,007
REFERENCE/DOCKET NUMBER: 1100
TELECOMMUNICATION INFORMATION:
TELEPHONE: 206-269-0565
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MEDIUM TYPE: Diskett
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TITLE OF INVENTION: Compou
TITLE OF INVENTION: Treatm
NUMBER OF SEQUENCES: 208
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linear
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FastSEQ for Windows Version 2.0
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Treatment and
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Pred. No.
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